

NATIONAL HISTORIC PARKS
AND SITES BRANCH

DIRECTION DES LIEUX ET DES
PARCS HISTORIQUES NATIONAUX

MANUSCRIPT REPORT NUMBER 186
TRAVAIL INÉDIT NUMÉRO

THE FORT AT COTEAU-DU-LAC:
FOUR REPORTS

(1977)

PARKS CANADA
DEPARTMENT OF INDIAN
AND NORTHERN AFFAIRS

PARCS CANADA
MINISTÈRE DES AFFAIRES
INDIENNES ET DU NORD

The Fort at Coteau-du-Lac:
Four Reports

The Manuscript Report Series is printed in a limited number of copies and is intended for internal use by the Department of Indian and Northern Affairs. Copies of each issue are distributed to various public repositories in Canada for use by interested individuals.

Many of these reports will be published in Canadian Historic Sites/Lieux historiques canadiens and may be altered during the publishing process by editing or by further research.

La série intitulée Travail inédit est imprimée à tirage limité pour les besoins du ministère des Affaires indiennes et du Nord canadien. Des exemplaires de chaque rapport sont distribués à des archives publiques au Canada, où les intéressés peuvent les consulter.

Bon nombre de ces rapports paraîtront dans la revue intitulée Canadian Historic Sites/Lieux historiques canadiens, et pourront être remaniés ou mis à jour.

The Fort at Coteau-du-Lac:
Four Reports

iii Abstract

- 1 A Narrative History of the Fort at Coteau-du-Lac
by George C. Ingram
- 101 The Fort at Coteau-du-Lac:
Structures and Other Features
by George C. Ingram and William J. Folan
- 247 Resistivity Surveys at the Fort at
Coteau-du-Lac, Quebec
by A.E. Wilson
- 259 The Octagonal Blockhouse
at Coteau-du-Lac
by George C. Ingram

Illustrations

- 277 1 A general plan showing the location of Coteau-du-Lac.
- 279 2 A modern plan of Coteau-du-Lac.
- 281 3 A model of the fort.
- 283 4 The first St. Lawrence Canal, 1781.
- 285 5 A view of the blockhouses and barracks, 1788.
- 287 6 Plan of Coteau-du-Lac by Lieutenant Wallpole, 1815.
- 289 7 The Fort in 1824 by J. Elliot Woolford.
- 291 8 The rapids and fort, 1840.
- 293 9 George Bell.
- 295 10 Coteau-du-Lac, general plan, 24 Sept. 1823.
- 297 11 Aerial view before excavation.
- 299 12 Aerial view during excavation.
- 301 13 Aerial view looking north.
- 303 14 Aerial view of the excavations, looking west.

- 305 15 Model of the fort, view from the northeast.
- 307 16 Model, view from the northeast.
- 309 17 Model, view from the south.
- 311 18 Excavation techniques.
- 311 19 Excavating the cellar of the commanding officer's quarters.
- 311 20 Excavating the north end of the canal.
- 313 21 A payloader and dump trucks were used to remove dirt.
- 313 22 Two dump-cars and flatbed car used in excavation of the canal.
- 315 23 Symbols used in drawings.
- 317 24 Consolidation and reconstruction.
- 317 25 A-frames and chain hoists used to move large stones.
- 319 26 Plan of the fort, 1814.
- 321 27 "Sketch...of the Buildings in charge of the Barrack Department...."
- 323 28 "Sketch of the old Fort at Coteau du Lac...."
- 325 29 South canal gate after excavation, looking west.
- 325 30 The gate sill at the south end of the canal.
- 327 31 Plan of the south gate sill.
- 329 32 East leaf of the south canal gate.
- 331 33 Section of the west canal wall near the south gate.
- 333 34 Section of the west wall at the south gate.
- 335 35 Section of the west wall showing masonry.
- 337 36 The north lock gate.
- 339 37 Section of the east wall showing entrance to tunnel.
- 341 38 Interior of the drainage tunnel looking east.
- 343 39 Plan and section of the octagonal blockhouse.
- 345 40 Plan, elevation and section of the octagonal blockhouse, 1823.
- 347 41 The octagonal blockhouse after excavation.
- 347 42 The wall dividing the octagonal blockhouse cellar.
- 349 43 Plan of the octagonal blockhouse.
- 351 44 East-west and north-south sections of the octagonal blockhouse.

- 353 45 Plan of the octagonal blockhouse.
- 355 46 Plan and section of the magazine door, octagonal
blockhouse.
- 357 47 Palisade north of the octagonal blockhouse.
- 359 48 Plan of the commanding officer's quarters, 1823.
- 361 49 The commanding officer's quarters after excavation.
- 363 50 Plan of commanding officer's quarters.
- 365 51 North-south section of the commanding officer's
quarters.
- 367 52 Plan and elevation of the storehouse/temporary
officers' quarters, 1823.
- 369 53 The storehouse, temporary officers' quarters after
excavation.
- 371 54 Plan of the storehouse/temporary officers' quarters.
- 373 55 North-south and east-west sections of the storehouse/
temporary officers' quarters.
- 375 56 Structural drawings of the storehouse/gunshed,
1823.
- 377 57 The storehouse/gun shed after excavation.
- 379 58 Plan of the storehouse/gunshed.
- 381 59 North-south and east-west sections of the
storehouse/gunshed.
- 383 60 Plans and elevations of the north blockhouse, 1823.
- 385 61 North blockhouse after excavation, looking southwest.
- 387 62 Plan of the north blockhouse.
- 389 63 North-south and east-west sections of the north
blockhouse.
- 391 64 Temporary kitchen or shed.
- 393 65 Plans and elevations of the south blockhouse, 1823.
- 395 66 The south blockhouse after excavation, looking north.
- 397 67 Plan of the south blockhouse.
- 399 68 North-south and east-west sections of south blockhouse.
- 401 69 The hospital.
- 403 70 The hospital after excavation.

- 405 71 Plan of the hospital.
- 407 72 North-south section of the hospital.
- 409 73 Cloverleaf bastion flagstaff.
- 409 74 Cloverleaf bastion; prehistoric burial.
- 411 75 Plan and section of flagpole base.
- 413 76 Plan of the cloverleaf bastion.
- 415 77 Hospital/master carpenter's quarters.
- 417 78 Hospital/master carpenter's quarters after excavation.
- 419 79 Plan of hospital/master carpenter's quarters.
- 421 80 North-south and east-west sections of the hospital/master carpenter's quarters.
- 423 81 Gun platform after excavation, looking south.
- 423 82 Masonry retaining wall; part of the earthworks retaining wall.
- 425 83 Plan of the gun platform.
- 427 84 An east-west section of the gun platform.
- 429 85 Plan and elevation of the carpenter's shop/stable, 1823.
- 431 86 Barracks/carpenter's shop/stable after excavation.
- 433 87 Plan of the carpenter's shop/stable.
- 435 88 Plan and elevation of the powder magazine, 1823.
- 437 89 Powder magazine after excavation, looking west.
- 439 90 Plan of the powder magazine.
- 441 91 North-south and east-west sections of the powder magazine.
- 443 92 Plan and elevation of the stone barracks, 1823.
- 445 93 The stone barracks after excavation, looking north.
- 445 94 Section of elevated walkway in front of stone barracks.
- 447 95 Plan of the stone barracks.
- 449 96 North-south and east-west sections of stone barracks.
- 451 97 Structural drawings of the commissariat officer's quarters/church, 1823.

- 453 98 Commissariat officer's quarters/church after excavation.
- 455 99 Plan of the commissariat officer's quarters/church.
- 457 100 North-south and east-west sections of the commissariat officer's quarters/church.
- 459 101 Western bridge abutment after excavation.
- 461 102 Plan of eastern and western bridge abutments.
- 463 103 An east-west section of the bridge abutments and the canal.
- 465 104 Plan of the guardhouse, 1823.
- 467 105 Guardhouse after excavation, looking west.
- 469 106 Plan of the guardhouse.
- 471 107 Plan of the bake house, 1823.
- 473 108 The bake house after excavation, looking east.
- 475 109 Plan of the bake house.
- 477 110 A north-south section of the bake house.
- 479 111 Barrack master's quarters, looking southwest
- 481 112 Plan of the two hearth bases, barrack master's quarters.
- 483 113 Structural drawings of the cooking house, 1823.
- 485 114 Cooking house after excavation, looking east.
- 487 115 Plan of the cooking house.
- 489 116 The barracks/store after excavation, looking east.
- 489 117 The barracks/store after excavation, looking north.
- 491 118 Plan of the barracks store.
- 493 119 Southeast gun platform after excavation, looking south.
- 495 120 Plan of the southeast gun platform.
- 497 121 Northwest gun platform after excavation, looking east.
- 499 122 Plan of the northwest, southwest and northeast gun platforms.
- 501 123 Southwest gun platform after excavation, looking west.

- 503 124 Two sections of the earthworks.
- 505 125 Officers' servants' quarters, looking northeast.
- 507 126 Structural drawings of the engineer blacksmith shop, 1823.
- 509 127 Structural drawings of the engineer's quarters, 1823.
- 511 128 Structural drawings of the ox stable/commissariat barn, 1823.
- 513 129 Structural drawings of the commissariat storehouse and stables.
- 515 130 Plan of Prisoner's Island.
- 517 131 Plan showing anomalies recorded during resistivity survey.
- 519 132 Octagonal blockhouse: general view of excavation from north.
- 519 133 Octagonal blockhouse: general view of excavation from south.
- 521 134 Octagonal blockhouse: general view of excavation from west.
- 521 135 Octagonal blockhouse: detail of flooring.
- 523 136 Octagonal blockhouse: central bearing wall showing doorway and drain.
- 523 137 Octagonal blockhouse: central bearing wall to east of hearth base.
- 525 138 Octagonal blockhouse: magazine door in situ.
- 525 139 Octagonal blockhouse: magazine door, reverse side.
- 527 140 "Fort of Coteau on the St. Lawrence River," 1824.

Abstract

This report includes four papers on the fort at Coteau-du-Lac. The first, by George Ingram, is a narrative history of the post. It discusses the reasons for the construction of the canal and post. The second report, by Ingram and William Folan, deals with the individual features of the fort, their separate histories and the structural information available for them. A.E. Wilson contributed a paper reporting on a resistivity survey of the site. The last paper, also by Ingram, discusses the history and structure of the octagonal blockhouse at Coteau-du-Lac.

A Narrative History of the Fort at
Coteau-du-Lac
by George C. Ingram

A Narrative History of the Fort
at Coteau-du-Lac
by George C. Ingram

3	Early Approaches
8	The Provision-Forwarding Post
16	A Canal is Added
26	The Inter-War Period: 1783-1812
34	War of 1812
53	Post-War Period
68	The Rebellion: A Military Interlude
76	Replacement and Decline
86	Endnotes

Early Approaches

Very little development of the St. Lawrence was undertaken during the French regime. In the early 17th century, explorers, traders and missionaries preferred to travel to the interior of North America by the Ottawa River, which posed fewer physical difficulties to travel to the upper lakes; and besides, for the first half of the 17th century the lower Great Lakes basin remained firmly in control of the belligerent Iroquois. Only toward the end of the century was the St. Lawrence considered as an alternate route and even then, physical difficulties limited traffic on the river.

In these early years, travel on both the St. Lawrence and the Ottawa was confined to the birchbark canoe. Borrowed from the Indian by the fur trader, explorer and missionary, the canoe was easily portaged around obstacles in the river and could carry cargoes of trade goods and furs to and from the interior. As long as transportation needs were limited in volume, the canoe was adequate to accommodate the traffic on the unimproved St. Lawrence.

In the latter part of the 17th century, however, the French began to build posts in the interior, establishing Fort Frontenac in 1673 and later Niagara, Detroit and Michilimackinac. The posts were designed to service the fur trade and to provide centres of French influence in the interior. The growing threat of the English from the south introduced a need for adequate defences.

The founding and support of these posts placed a tremendous demand upon the existing lines of supply; no longer was the canoe adequate to carry the increased quantities of provisions required for the garrisons, the fittings of vessels being constructed on the interior lakes, and the armament and equipment used in the forts. Turning to a more commodious vessel the French began to use the bateau for travel on the upper St. Lawrence. Although offering less flexibility than the canoe, only with great difficulty could this durable wooden craft, flat bottomed with pointed ends, be dragged or poled around obstacles in the river. Unlike the canoe, which was portable and could be carried around the rapids, the bateau could only skirt them at best, and frequently faced the brunt of their fury; its introduction to inland riverine transport was followed by a search for ways to improve the channels. These improvements were slow to come, although some attempts were made. In the early 1700s, for example, proposals were made for methods of by-passing the rapids at Lachine. Bateaux could not navigate the river between Montreal and the mouth of the Ottawa River, and a depot had been established at the upper end of the Lachine rapids to serve as the starting point for expeditions to the interior. The inconvenience of transporting goods to Lachine from Montreal by land led to the consideration of a canal between the two points, but the venture was never carried through to completion.

Attention was also given to the improvement of navigation around the troublesome sections along the rest of the St. Lawrence. Little had been accomplished, however, by the middle of the 18th century. Chaussegros de Léry, travelling from Montreal to Detroit in 1749, noted the difficulties of the passage in his journal describing the expedition.

When he reached Coteau du Lac, he was forced to leave the bateau with part of the cargo while the men dragged the boat around the rapids at considerable danger to themselves.¹ Apparently some effort had been made to improve the channel at Coteau du Lac by placing a "chaine de roches" around the outer perimeter of the point, creating a passage through which boats could be towed to avoid the rapids. The attempts were rudimentary, however, and de Léry's bateaux were forced out into the rapids.

From 1749 to 1760, further improvements in navigation on the St. Lawrence were few. In the 1750s there was too much concern with the defence of the French possessions to allow the expending of men or finances in construction of improvements on the river.

When Jeffery Amherst led his British forces down the St. Lawrence to attack Montreal in 1760, the year after the fall of Quebec, they came down a river virtually unimproved. After crossing Lake St. Francis on their passage downstream, they met with disaster when attempting to pass the rapids at Coteau du Lac and below.² John Knox, who accompanied the expedition, laconically reported the loss of "forty-six batteaus, seventeen whaleboats, and one row-galley, whereby eighty-four men were unfortunately drowned, a few pieces of ordnance, and some stores and provisions lost."³

After 1763, the British were slow to introduce any improvements of their own. Early policy tended to restrict movement into the country west of Montreal, although fur traders continued their annual voyages into the interior. The British did retain some of the French posts,

however, and these garrisons still required provisions and supplies. The occasional military expedition sent to the interior required transportation by bateau. When Colonel John Bradstreet was sent to break up Pontiac's siege of Detroit in 1764, a battalion of Canadians was recruited in Quebec, Montreal and Three Rivers, along with skilled boatmen to man 100 bateaux carrying supplies which went up the St. Lawrence to meet Bradstreet at Oswego in the spring. The British apparently continued to use the system employed by the French, calling upon corvée labour to man the boats which would be navigated by experienced Canadian pilots.⁴

With the outbreak of the American Revolution, the western posts assumed a new significance. No longer were these fur-trading centres solely defended against the Indians but once again faced an enemy to the south and east. The increased danger brought a need for considerable strengthening.

Action at the western posts was postponed, however, by the difficulties faced in the east. In September, 1775, the invading American forces entered Canada and for the next year the whole energies of the British command were taken up with the defence of Quebec and its immediate approaches. American control of the Montreal area after 13 November effectively cut off any extensive communication between Quebec and the inland posts.

Quebec withstood the siege of the American troops throughout the long winter. When reinforcements from England arrived in the spring, the Americans were forced to drop back from their position before Quebec and eventually to withdraw from the province. After their retreat, plans were

developed for a counter-offensive in 1777 under General Burgoyne. The planning and launching of the offensive exhausted the resources of the British command in Canada and restricted activity in the interior. The offensive also led to Carleton's resignation; when he was not given command of the campaign, he asked for recall to England. His replacement, Frederick Haldimand, arrived in Canada the following summer, and, facing an entirely different set of circumstances, approached the defence of his command in a manner which placed greater importance on the St. Lawrence route to the interior.

The Provision-Forwarding Post

When Frederick L. Haldimand stepped ashore at Quebec on 27 June 1778, he faced a situation much different from that which his predecessor had faced. Carleton had been besieged in Quebec, been confronted with a disaffected population, and seen his plans for an elaborate counter-offensive fail. To Haldimand was left the more pedestrian yet essential role of building and maintaining defences effective enough to prevent a recurrence of the humiliating events of the winter of 1775-76, and of harassing the enemy through sporadic border raids.

A month after his arrival at Quebec, Haldimand sat down to write a detailed assessment of his new charge. His observations expressed the fears and problems with which he would be occupied for the next six critical years. Strategically Haldimand's new defensive role had a different emphasis. At the time (July, 1778), Quebec itself appeared to be safe from attack; but the weaknesses which permitted the easy march of the Americans on Quebec in 1775 had to be removed. "My first care," wrote Haldimand, "shall be to fortify, as strongly as possible, the avenues into the Province St. Johns, Cataraqui, Oswego, Detroit, Niagara, perhaps Presqu'Isle."¹ Great emphasis was placed on the western posts; they were the first, and indeed the last defence of the British position in America. Upon them depended the fur trade and the expensive yet necessary contact with the Indians.

The relationship with the Indian was vexatious; Haldimand at first looked upon it as a necessary evil. While not of much direct assistance

as allies of the British, as allies of the rebellious colonies they could do much harm and the Americans were "leaving no stone unturned to gain them." The Indians were retained as British allies by a continuation of the expensive policy of annually distributing presents. Each year the tribes gathered at British posts in the interior where they were given the means of livelihood -- seed, powder and shot, and other necessities. The cost was great; added to the purchase price was the cost in time and money of moving the goods from Montreal to the points of distribution over a transportation system already faced with the task of carrying military supplies and provisions to the British garrisons at the outlying posts.

At the time of Haldimand's arrival, goods were being shipped by bateau from Montreal to Oswegatchie and there transferred to the government vessels which sailed on Lake Ontario. Haldimand planned to remove the depot to Cataraqui (Kingston) from Oswegatchie, where the works were in bad repair and navigation treacherous for lake vessels. By 28 July, a work party was sent out to begin construction at Cataraqui. Stopping at Buck Island on the way, Lieutenant William Twiss, R. E., and John Schank, R. N., decided a better site could be situated there because of more extensive supplies of wood, a better, more sheltered harbour, and a healthier climate. Construction began immediately on Fort Haldimand. The island, re-named Carleton Island, served as the depot and transfer point from river to lake navigation for the remainder of the Revolution. Private and government goods alike passed over the St. Lawrence to Carleton Island, and then continued on government vessels to the interior.

The transportation system of the Great Lakes was in turn dependent upon the tenuous line of the St. Lawrence. The sheer bulk of goods to be transported in the short time permitted by the navigation season demanded concentrated effort. By the spring of 1779, Haldimand turned to the relief of the congestion on the river. Writing to Carleton he noted his resolution "to employ all my strength for the security of the upper posts and the first object in doing this is forwarding and securing transport."² In April, Captain Brehm, Barrack Master General and later Haldimand's aide-de-camp, was sent on a fact-finding mission to Detroit to inspect the posts of the interior.³ As part of his survey, Brehm was ordered to direct special attention to the rapids of the St. Lawrence.⁴ Haldimand requested recommendations for the location of a warehouse at the Cedars to serve the brigades of bateaux passing upstream, and suggestions for the defence and improvement of the river passage.

Brehm's journey led directly to the establishment of major posts at Coteau du Lac and at the Cedars. Arriving at the latter place 26 April 1779, he "fixed upon a better place at the Cedars than where the landing place is at present for a storehouse about $\frac{3}{4}$ of a mile higher up, which place has several advantages above the present landing,"⁵ and "wrote to Mr. Maurer to send up carpenters to build the said storehouse." He delayed a final decision as to location until his return from Detroit because the water in the river was then too high to allow him to make a proper evaluation.

From Detroit, Brehm proposed further that the Cedars be turned into a major establishment for the building of bateaux and for storage of

provisions and stores brought there by sleigh during the winter for transshipment.⁶ Haldimand felt that the relocation of the bateau workshop would be too great an inconvenience, as the materials and workers were situated at Montreal, but he did approve the building that fall of a storehouse for 1,000 barrels of provisions and agreed to leave 100 bateaux there at the end of the navigation season.⁷

Haldimand also counselled care in the selection of the site. Brehm had spoken of the Cedars in his recommendations for the new depot and on 18 August when he reached the Cedars on his return, he found an engineer and party erecting a storehouse.⁸ But one week later Captain Leake was ordered to Coteau du Lac with his corps to "afford every assistance to the works carried on there."⁹ Certainly Coteau du Lac was the site where the station proposed by Brehm was eventually established. Its position at the foot of Lake St. Francis made it a logical place to commence navigation in the spring. Possibly the site was changed at the last moment from the Cedars to Coteau du Lac. More likely, at the same time as the large storehouse was established at Coteau du Lac, another storehouse was under construction at the Cedars where the provisions were landed and carried around the treacherous rapids.

Haldimand's gnawing concern with the transportation to the interior was reflected in the rapid progress of the project. With the last mail ship of the fall he sent a report to Germain of his plan for the St. Lawrence. A new ship had been built at Carleton Island, the fort improved, and very extensive storehouses constructed. Even further improvements had been necessary, however,

for the provisions, the amazing consumption of which amongst the Indians has obliged me to give more attention to this Part of the Service than was ever necessary before, and has induced me to build new storehouses very near Lake St. François which I know will considerably forward the Spring Transport should the King's Service require particular Exertion. The Engineers Department has also been employed in improving the navigation for Batteaux up the Rapids from Montreal to Oswegatchie, an Improvement of the utmost consequence in case the upper Posts are so strongly attacked as to Require an Expeditious Reinforcement.¹⁰

In Canada, Haldimand personally pushed the work to completion so it would be ready for the opening of navigation the following year. Toward the end of November when he sent Lieutenant Twiss to report on the progress of construction, he expressed concern that the installation be completed by spring.¹¹ Haldimand was no doubt relieved when Twiss reported that the defences and storehouses were going up rapidly and noted "in its present state this will considerably advance the transport to the upper country."¹²

The station at Coteau du Lac was conceived as a transshipment point; goods could be placed in the warehouse there in the late fall or winter and sent on at the spring breakup, thus allowing transportation to be conducted on a year-round basis. Twiss went one step further, however; upon seeing the site he appears to have recognized the potential of a canal. "I am now forming a plan to render the passage of batteaux still

more commodious," he reported, "and hope we shall be able to complete it during next summer."¹³ Although not explicit, the recommendation obviously carried the germ of the idea for canal improvements. Haldimand, ever concerned with transportation problems, approved Twiss's plan unheard.¹⁴ Nevertheless, work did not begin on the canal until the following spring, and in the meantime the provision-forwarding post as conceived by Captain Brehm was put into operation.

The last bateaux before the freeze-up of the St. Lawrence brought 326 barrels of flour, 248 barrels of pork, and 49 barrels of peas up the river for storage at Coteau du Lac until spring.¹⁵ In February, Nathaniel Day, the Commissary General, prepared to begin winter transport.¹⁶ The Governor approved of Day's plans which would "no doubt be a great saving ... besides the advantage of forwarding provisions early," and ordered that they be implemented as soon as possible.¹⁷ Day was ready; the land transport was set in motion that week. He would visit the store at "Coté du Lac" himself and "have the people and everything prepared for receiving the provisions."¹⁸ The first supplies, flour and pork, would be marked for "the most distant posts, viz. Niagara, Fort Erie, Detroit and Michilimackinac." On the sixteenth, the sleighs loaded with 124 barrels of flour set out from Montreal.

Day reported enthusiastically to Haldimand on his return to Montreal.¹⁹ He suggested first that the name of the station should be changed to Haldimand Point, a suggestion which Day alone appears to have adopted. The storehouse at Coteau was, he felt, "properly proportioned and well built." The middle loft which would contain about 1,000 barrels of English flour

was assigned to dry storage. Pork was stowed on the ground floor and "biscuit and necessaries for the Batteau men" in the upper loft. The sleighs which travelled up on Tuesday and Wednesday of that week were conducted by Canadians, each sleigh carrying three barrels of flour. The sleighing of supplies continued throughout the month, and by the end of February the transportation of provisions had been completed.²⁰

Additional supplies were sent during the course of the winter, especially articles which were required in the interior as soon as possible. For instance, when Haldimand was anxious to get Indian corn and pumpkin seed to the upper posts for planting in the spring, he had them forwarded to Coteau du Lac in March to be transshipped by the first bateaux.²¹ Also, when the supply of rum was depleted at Carleton Island forcing the garrison to turn to private traders, rum was sent to Coteau du Lac so it would arrive at Carleton Island immediately after spring break-up.²²

With the success of this small shipment of rum in puncheons, Day proposed that a second storehouse be constructed exclusively for rum.

In future, a great part of this expense may be saved by having a safe Store House at Coteau du Lac, to contain a sufficient quantity of Rum for Oswegatchie, Carleton Island, and Niagara, to be transported there during the slaying (sic) months in Puncheons as these packages are sufficient when at Coteau du Lac for the above Posts, and barrel's would be only necessary for Detroit and Michilimackinac to be sent from Lachine when the River opens.²³

Haldimand thought that Day's observation was "a just one" and recommended the erection of a "proper store for the reception of rum," for there was more than one storehouse at Coteau du Lac by the following fall.²⁴

A Canal is Added

Only limited results could be expected from the depot at Coteau du Lac; at most the use of the depot would gain a few weeks in the navigation season. The suggestion of a canal by Twiss in December, 1779, offered a more permanent, and in the long run a more significant, solution to transportation on the upper St. Lawrence. By easing and therefore speeding up river traffic, more boats could be sent over the bottleneck during the shipping months. When combined with other canal construction and navigational improvements during the remainder of the American Revolution, the result would be a viable bulk transportation system which would be the springboard for expansion into the interior at the turn of the century.

In advocating a canal improvement of the St. Lawrence, Twiss was reflecting the current canal boom in England, just reaching the height of the first wave of expansion in the 1770s; the completion of the Duke of Bridgewater's canal from Worsley to Manchester in 1761 set off a frenzy of construction which was resulting in the completion and successful operation of a series of canals in England. Canal construction was a tried and successful venture by 1779 and a logical solution to be introduced in Canada by an English engineer.

The situation at Coteau du Lac lent itself well to canal construction. By making a straight cut through the point of land and compensating for an eight-foot drop in water level, a canal could be created which would

allow bateaux approaching along the shore to bypass the treacherous Coteau rapids. Twiss's plans were worked out over the winter and by spring, construction on the canal was under way. On 16 March, artificers and sawyers from Sir John Johnson's corps were ordered "to forward the works carrying on at Coteau du Lac" where they would be employed "under the direction of the person in charge of the Engineer's Department stationed there."¹ Artificers connected with the regulars under Lieutenant Colonel St. Leger as well as Royal Yorkers were employed.²

Twiss was extremely pleased with the progress of the canal when he visited Coteau du Lac in the early part of June, 1780.³ The project was "pushing forward with great industry" and he was "in hopes to complete the locks for passing bateaux by the end of September." Twiss could be permitted a bit of exaggeration in claiming his locks would be "as useful to navigation as any in the world," for the canal was a decided improvement on navigation of the river, and probably was the first of its type in North America.

As Twiss had promised, the canal was finished in 1780, ready for navigation in the spring. Work continued on the canal through the summer. In June, Captain Leak's company of Royal Yorkers was ordered to assist with the works at Coteau du Lac and in August, men of the 2nd Battalion, Sir John Johnson's corps were sent to give assistance.⁴ In the fall, Haldimand reported to Germain the efforts which had been made to improve navigation.

Having frequently mentioned the difficulty of transporting

Provisions to the upper Posts, I beg to add that we have used

our Endeavours to lessen them as much as possible, particularly at Côteau du Lac, where new Store Houses are erected & a very compleat Canal finished, by which loaded bateaux pass thru three Locks & avoid a most tedious and laborious passage up a violent Rapid.⁵

When William Twiss visited the post later in February, he reported that the canal "was very compleat and in good order."⁶ Anticipating the opening of the canal in the spring, he called together a meeting of the merchants on his return to Montreal to obtain their consent for the imposition of tolls "as their trade would always reap the advantage of such improvements."⁷ "The justice of this was allowed," Twiss reported, "and they all voluntarily and with great cheerfulness consented to pay 10 shillings currency for each bateau which passes the new locks." Haldimand expressed delight with the prospect of tolls and hoped that the government would be "materially reimbursed."⁸

The canal was merely another attack on the navigational problems of the river. The provision depot continued to function in conjunction with the canal. In the summer of 1780, more buildings, mainly dwellings and stables, were added to the complex, and a company of bateau men, consisting of Loyalists commanded by Mr. Herkimer,⁹ was ordered to be formed in July to conduct the goods from Coteau-du-Lac. They were charged with assisting the transport of provisions to Carleton Island in the summer months.

At first the bateau men appear to have caused a great deal of trouble. In September, Lieutenant Maurer, the inspector of bateaux, was sent to

Coteau du Lac "to throw them into order that they may become useful." Reports had noted that the men recruited were not very fit and were more interested in financial gain than service. Mr. Herkimer seemed to be collecting "women and children rather than men."¹⁰ The reports were confirmed by Maurer's visit. Most of the men were quite old, some no more than "idle drunken vagabonds." The large number, "72 souls," was more a drain on the transportation system than an aid to it.¹¹ As a result, Maurer was given over-all supervision of the company, and returned to Coteau du Lac once again at the end of October to implement reform. Six men were dismissed immediately as useless; of the remainder all but two were fit for service on the bateaux.

There remain only 2 white men who are unfit for the Batteaux service; but very necessary and serviceable at the place. The one to take care of the Canal & the other, who is a carpenter, I have ordered to be employ'd in making oars, setting Poles & Paddles for the Batteaux service. The 2 old negroes who are coopers I have provided with Tools and order'd to prepare wood to make 200, 4-gallon Keggs for the use of the Batteaux men; and as numbers of barrel's are wanted for the service in the course of a year, whenever they have finish'd the keggs they may be employ'd in making barrel's. There remain 4 more old negroes belonging to Sr John, whom I order'd to remain untill his return.¹²

The others would be used to replace sick bateau men on the regular crews so they could learn the river route and become less dependent on the Canadian pilots.

On the whole, the men of the bateau company were a wretched lot. Shortly after Maurer had completed his inspection, Herkimer wrote informing him that Haldimand had promised "a suit of cloath to his men." "They are entirely naked," noted Maurer in passing along the request to Haldimand. "I could not send but five of them off to Carleton Island for want of cloathing."¹³ Probably much to their relief, they were given a suit of clothing "such as Loyalists receive."¹⁴

The tight schedule of supply continued to frustrate Haldimand. Over the physical problem of transportation west from Montreal he had at least some control. The establishment at Coteau du Lac and improvements in navigation had been instituted to overcome this obstacle. But in order for the transportation system to operate properly, he must have a reserve of goods in Montreal which could be moved over this system when the opportunity was offered. Each year the supply ships from England arrived late, robbing him of valuable time in the transportation season. In desperation, Haldimand wrote to Germain describing the difficulties brought on by the late arrival of the ships.

The great consumption at the Posts indispensably requires that the Transport should begin immediately upon the River breaking up and to forward it, a large Quantity of Provisions is conveyed in the Course of the Winter upon the Ice to Coteau-du-Lac passed the most difficult rapids. This can be done only by having it ready in store at Montreal from whence if the Victuallers should not arrive, I shall be obliged to withdraw it, and the consequence to the Posts may be very fatal, as their stores are

generally exhausted by the 1st of June, and supplies cannot be conveyed from hence to Niagara in less time than six weeks after their arrival from Europe which has not been these two last years before the end of June and middle of August.¹⁵

In spite of the difficulties, the winter transport to Coteau du Lac continued that year. In the fall, 14 bateaux stopped at Coteau du Lac with 272 casks of flour and 38 of peas.¹⁶ By 24 December 1780, a considerable quantity of goods had been left in store.¹⁷ Other lots of goods were sent up intermittently as in the previous year; for instance in November, Maurer reported to Mathews that "leggings and cloath for making them" for Colonel Butler's rangers would be "sent to Coteau du Lac in the course of the winter, and by that means would be up very early in the Spring."¹⁸ The winter transport began in earnest in March when Day visited the post and reported to Haldimand that he planned to forward 350 more puncheons of rum for early transport to Carleton Island.¹⁹ By the end of March, 198 bushels of Indian corn had been stored in the warehouse, probably intended for spring planting as directions were given "for sending the Indian Corn in the first bateaux that leave Coteau du Lac."²⁰ The spring transport from the post began in the first week of May.²¹

Day had noted that Coteau du Lac had become "a place of consequence." Dennis, the commissariat issuer, complaining of the man in charge at Coteau du Lac, explained that "Coteau du Lac is at present a post of the greatest importance, as it is now the repository of all the stores for the whole upper country and consequently requires the greatest activity and attachment to business to forward them with dispatch."²² Its function was "to

receive and expedite the transport of provisions."²³ To perform the services connected with the warehouses, the transfer of stores at the beginning of the navigation season and the operation of the canal, which would begin that spring, a large number of retainers was stationed at Coteau du Lac.

In his February visit, Twiss observed the growth which had taken place at the post.

The new Storehouses and other Buildings at Coteau du Lac are all compleat and Captain Markiman[sic] has lodged himself and his men very comfortably, he has also begun other Buildings in case his company should be increased: -- upon the whole the post is in much better order than I expected to find it.²⁴

Quite a settlement had grown up consisting of the men of the bateau company and their families and "a number of women and children under the denomination of Royalists" who had "seated themselves in and about Coteau du Lac."²⁵ Apparently, even a "public house" had been established there, although the sutler, Mr. Falconer, was "ordered down to Montreal" and "positive directions" given "not to permit any person whatsoever directly or indirectly within or without the fort to keep a house of entertainment where retail liquor -- a practice so evidently prejudicial to the transport, and to the tranquility of the Indians -- must not be suffered."²⁶ The growth in activity at Coteau du Lac also prompted the stationing of an assistant commissary officer there in March. Previously, the commissariat matters appear to have been handled by the commissariat officer at the Cedars. Unfortunately, the new appointee, Mr. Keho, brought a "girl of the

town" with him to his posting.²⁷ He was summarily removed in April and his place taken by Dennis, "the Senior Commissary in that neighbourhood," probably until a replacement could be found.²⁸

The increase in the importance of the post was also reflected in the concern for its defence. When Twiss arrived there in February, the 30 men of Herkimer's company had only "ten Indian fuzels but no ammunition."²⁹ Twiss handed over some powder which remained from the work on the canal and upon his return "30 stand of Indian arms" with the necessary ammunition were sent to Coteau du Lac for the bateau men.³⁰ In May, Maurer visited the site with instructions to apply for a subaltern's detachment if necessary "for the safety of the stores or better management of the transport."³¹ On his recommendation a detachment was obtained from General McLean, apparently consisting of men from the Royal Regiment of New York, so the bateau men could be free to work in the transportation service.³²

The need for an adequate garrison became even more pressing in July when Haldimand decided to establish a prisoner of war camp on Prisoner's (now Arthur's) Island opposite the post at Coteau du Lac.³³ By October, prisoners were already being brought there from other camps in the province and the barracks was "in good forwardness."³⁴ Among those sent from Montreal in the fall of 1781 was Zadock Steele, who had been captured in the Indian raid at Royalton on 16 October 1780. Steele, interned for about one year at Coteau du Lac, left a vivid account describing the harshness of his captivity (probably somewhat exaggerated) and the events surrounding his dramatic escape.

The Royal Yorkers making up the camp guard he dismissed as "a company of refugees and Tories possessing as little humanity as patriotism."³⁵ And according to Steele, they found compensation for their harsh treatment as Loyalists in the 13 colonies by maltreating the prisoners. However Steele did not complain strongly about the food nor the barracks accommodation. The prisoners were placed 12 to a room in log barracks while the guards were housed in separate dwellings. The whole compound was surrounded by a palisade.

In August, 1732, Steele and his barracks mates began to dig a tunnel from their room to the outside of the wall using only a jackknife. In the month that followed they encountered problems which had all the characteristics of an escape story of World War II; and their methods of avoiding detection, of masking their activity and of disposing of excavated material were strikingly similar to those employed by their modern counterparts. On the tenth of September, Steele and his associates successfully went through their tunnel to freedom and eventually made their way to their homes in the 13 colonies. Most of the prisoners were not so fortunate. Because the camp was located on an island it offered few occasions for escape. At the peak of its activity the camp held close to 200 prisoners, making it one of the largest in the Montreal district.

The prison compound on the island was only a small part of the operation at Coteau du Lac. The canal and storehouses, bateau company and Canadians continued to make the most significant contribution in their implementation of the transportation of supplies. By the fall of 1781, a routine had been established at Coteau du Lac which lasted until the end

of the revolution. Canals were added to bypass other troublesome points on the river at Split Rock and Cascades, and together with that at Coteau du Lac they formed the transportation system which carried essential goods and materials to the upper posts. As usual, in the winters of 1781-82 and 1782-83, seeds, provisions and other goods were forwarded to Coteau du Lac from Montreal and Lachine and were sent on in the spring. The garrison continued to grow and the facilities were expanded to accommodate them. Bateaux were stationed at Coteau-du-Lac, and some may have been constructed there.

The post at Coteau du Lac continued to serve as a military post until the spring of 1783 when the revolution was all but over. Then, in the dying days of the war, more civilian traffic began to pass through the canal. Loyalist refugees poured into the interior over the St. Lawrence route, presaging the change in activity which would follow the war.

The Inter-War Period: 1783-1812

There was no definite turning point between the conditions of war and the conditions of peace, but late in 1782 and in 1783, Loyalist refugees and their families began to pour into the upper country as it became evident that the war had been lost. To the already burdensome task of military transport was added the problem of transporting the Loyalists and the supplies they required for establishing themselves in their first years in the new land. The transition was not an easy one. The government was ill-equipped and poorly prepared to handle a civilian population in the upper country where previous policy had limited European penetration. With reluctance at first, but eventually with enthusiasm, Haldimand made arrangements to accommodate the new settlers: treaties were concluded with the Indians for the purchase of land; surveys were made of the various parts of the interior, and an organized grid of townships was established.

The Loyalists were given considerable assistance. Land grants were made according to rank in the colonial forces, although civilian Loyalists also received land. They were assisted in their journey up the river and given implements for working their new grants as well as rations to provide for the period before their own land would yield sustenance. In 1784, when Haldimand left the province, there were 6,152 refugees of which 5,576 were drawing full rations, a situation which continued until the fall of 1786.

Coteau du Lac played a key role in the supply and transport of the Loyalists much the same as it had done in a military capacity during the war. For the remainder of the winter of 1782-83 the post continued with the task of supplying the upper posts. By the summer of 1783, however, a start was made in easing out the Revolutionary War establishment. Twiss visited the site in August and gave a very unfavourable report on Herkimer's crew; as far as he was concerned they were now "totally useless."¹ In September, "several persons" applied "to have their negroes from Herkimer's Company" and were given permission to take them.² And by 1784 or 1785, Herkimer had already settled in the Cataraqui townships, an indication that the bateau company had been disbanded.³ It had been formed to meet the emergency demands of the war, and although the strains on the transportation system continued after the war, a special corps of bateau men was no longer needed.

Coteau du Lac continued to serve as a forwarding post for supplies consumed at the interior military posts and in the Loyalist settlements. In June, 1784, Sir John Johnson wrote to Haldimand asking that provisions be forwarded to Coteau du Lac for the settlers "to prevent their coming down for it."⁴ Apparently some Loyalists had remained behind on an island to cultivate vegetables.⁵ Haldimand had provisions sent up immediately, and also ordered bateaux to Coteau du Lac to implement the transportation of the Loyalists inland.⁶ In the fall, provisions for the Loyalists were added to those sent forward for the military posts to be stored at Coteau du Lac until the opening of navigation in the spring.⁷

Within a few years after the revolution, the Loyalists were settled sufficiently to take care of their own requirements, and the role of

Coteau du Lac in government supply was restricted to the provisioning of the garrisons of the western posts. Even this role declined by the 1790s as the interior settlements began producing a large enough surplus to provide most of the provisions required by the garrisons, although the government continued to ship specialized goods over the transportation route.

Gradually the buildings of the extensive Revolutionary War installation fell into disuse. A passing traveller in 1787 noted that "the storehouses appear to be in good condition but the blockhouses, barracks, and stockade are going fast to ruin the barracks etc. upon Prison Island are in the like state of decay."⁸ At that time a small detachment consisting of a sergeant and 12 men of the 34th Regiment were garrisoned at the post. In 1792 Gother Mann, R. E., visited Coteau du Lac and recommended that only the canal and the buildings used by the detachment or in the service of transport be repaired.⁹ Although Mann acknowledged the importance of the river Cataraqui (the St. Lawrence) as "the great communication from Lower to Upper Canada," and the contribution of the canals toward making "navigation less hazardous and tedious than formerly," he did not feel that defence works would be "necessary or useful" at Coteau du Lac.¹⁰ Only Prison Island should be chosen as a site for a battery, if indeed defences were needed. Two years later when the "intrigues and influence of France" combined with the ill-feelings generated in the United States by the retention of the western posts made war appear inevitable, Lord Dorchester wrote to Governor Simcoe, impressing on him the importance of defending the transportation route, especially

the upper part of the river St. Lawrence.¹¹ But nothing appears to have been done to place the defences of Coteau du Lac in order. Instead, only a token garrison was retained into the 19th century. When war with the United States broke out in 1812, the defences were completely in ruins.

During the period from 1783 to 1812, the principal activity at Coteau du Lac revolved around the canal and was of a civilian nature. As the settlements grew in the interior, a two-way trade was established: new demands were created for goods which the settlers could not produce themselves, and within a decade the farms recently carved out of the wilderness began to produce a surplus of agricultural goods which were floated down to merchants on the lower St. Lawrence. Haldimand, in transferring the accounts of the Marine Department to the Quartermaster General in 1784, noted that the revenues from the tolls should be applied "to the necessary repairs it will require, and to the further improvement of that Route for the transport to the Upper Country which is now become an object of greater consequence on Account of the new Settlements."¹²

By the 1790s the population, consisting mainly of Loyalists and late Loyalists, had grown large enough to bring about the creation in 1791 of a separate province, Upper Canada, divided from the old province of Quebec, Lower Canada, slightly west of Coteau du Lac. Although the canal remained within the old province, it shared the fortunes of the increasing settlement of Upper Canada. During the revolution and in the years that followed, canals similar to that at Coteau du Lac had been added at Split Rock, Cascades and Moulin, easing the navigation for bateaux between Lake St. Francis and Lake St. Louis. At the same time, a group of merchants became

established in the interior specializing in the transport to Montreal of the raw materials -- wheat, flour, potash, pork and lumber -- produced by Upper Canadian farmers. In return they traded manufactured goods and other necessities not produced by the settlers: spirits, nails, glass, stationery, fustians, muslins, serge, silverwork, earthenware, plow shares, stoves, soap, candlesticks, candle moulds, carrot tobacco, and so on.

The principal method of transportation was by bateau. Of the many descriptions of this craft, Isaac Weld's is one of the most complete.

A bateau is a particular kind of boat, very generally used upon the large rivers and lakes in Canada. The bottom of it is perfectly flat, and each end is built very sharp, and exactly alike. The sides are about four feet high, and, for the convenience of the rowers, four or five benches are laid across, sometimes more, according to the length of the bateau. It is a very heavy awkward sort of vessel, either for rowing or for sailing, but it is preferred to a boat with a keel for two very obvious reasons; first, because it draws less water, at the same time that it carries a larger burthen; and secondly, because it is much safer on lakes or wide rivers where storms are frequent.¹³

By 1800, increasing demand on the transportation system led the merchants to enlarge the size of the boat used. In most cases they turned to the Durham boat, which had been used extensively in the northern United States. In that year, Gother Mann complained that the canals on the

St. Lawrence could no longer accommodate the traffic on the river.

The merchants have for some time found it advantageous to increase considerably the dimensions of their Boats navigating the River between Montreal and Kingston, and there is a desire of carrying this improvement still further; in consequence the present Locks and Canals are not only deficient in depth of water, but are likewise too narrow: the boats pass with difficulty and are obliged to have a part of their lading taken out, which occasions considerable additional labor and delay.¹⁴

"The great convenience of the locks in a proper state" made it requisite that they be attended to immediately. The yearly returns from the tolls which he calculated at about £600 would more than repay the expense of the alterations. The changes would be necessary particularly for traffic moving upstream. Raw materials travelling downstream generally bypassed the canals, especially as lumber, floated down in rafts, became a significant item of the export trade.

Richard Cartwright was typical of the merchants dependent upon the St. Lawrence transportation system. In partnership with Robert Hamilton, he "filled the dual role of wholesaler and 'agent for transport' to the upper country."¹⁵ During the revolution his operation was based on Carleton Island, and later he shifted his operation to Cataraqui, where he operated a general store. Cartwright did his business through a Montreal agency, Todd and McGill, which handled all his Montreal affairs

and dealt in turn with a London firm. In general, this was the procedure followed by all the merchants working in the interior.¹⁶

Most of the goods for upper Canadian merchants were brought over the St. Lawrence system through the canals, and as the population of the upper province grew, civilian traffic on the river increased proportionally. A lock-master was stationed at the locks and the canal was kept in repair by annual maintenance. The tolls collected from the private boats passing through the locks on the St. Lawrence were either collected at the individual canals or levied at Lachine for the whole system.

The growth of population which prompted the creation of a separate province in 1791 and the growing trade in the interior created difficulties in relation to the division of customs duties. In the old province of Quebec, import duties on goods entering the country had been levied at Quebec. As long as the source of revenue went into the coffers of one government, no problem arose; however, with the growth of settlement in the interior a proportion of these imported goods passed from Quebec to Upper Canada. After 1791, the government of Upper Canada claimed part of the revenue from the Quebec customs. Various suggestions were made for dividing the revenues, but not until 1797 was a mutually acceptable solution found. A customs collector paid by the legislatures of Upper and Lower Canada was stationed at Coteau du Lac to record the dutiable goods passing into the upper country especially from the lower province but also from the United States. Twice yearly he reported to the legislatures.

The solution was a compromise, and like most compromises received a great deal of criticism. With the expansion of settlement to the west and

the commencing of settlement on the Ottawa River, a collector at Coteau du Lac could not keep account of all goods passing into Upper Canada. In 1816, the whole situation of the collector was reviewed when Upper Canada complained bitterly about its share of the revenues.¹⁷ No solution was found then and in the years immediately following. Eventually, with the passing of the Canada Trade Act in 1822, the share allotted to Upper Canada was calculated from population figures; nevertheless a customs collector continued to be stationed at Coteau du Lac to check goods entering from the United States.

Between 1783 and 1812, the operation at Coteau du Lac was directed toward peacetime pursuits. To better handle merchant traffic, the canal was enlarged between 1801 and 1804 and continued to serve until the War of 1812. With the outbreak of war, the activity of the post returned to a military function. Although merchants continued to take their vessels through the locks, the primary concern was now the transport of troops and provisions for defence against the invading forces from the south. Coteau du Lac was once again thrust from a quiet peacetime service role to the centre of the stage, a strategically important position on the vulnerable St. Lawrence route.

War of 1812

Relations between Great Britain and the United States remained strained for some years following the revolution. The retention of the British posts in the territory of the southwest ceded to the United States by the peace terms rankled the Americans until the eventual surrender of the posts in 1796. In the years that followed, a long series of incidents connected with the Napoleonic conflict in Europe strained Canadian-American relations to the breaking point. It was evident that any war would be fought on Canadian soil and that Great Britain, preoccupied with the campaign in Europe, would be able to extend little or no aid to the colony: nothing had been done toward strengthening the border defences. Certainly those at Coteau du Lac had been left untouched after the revolution when only a caretaker garrison was left in charge; but as the possibility of war approached there could be little doubt that the St. Lawrence and Coteau du Lac would play an important role.

The recent interior settlement raised numerous questions concerning the traditional system of defence. During the revolution, the western posts had been considered of sufficient strategic importance to occasion defence; but in the event of their loss, only the posts themselves and the unsettled territory would have changed hands. Considerably more was at stake now, and yet important as they might be, the settlements were extremely vulnerable to attack.

Consequently, the British command was reluctant to abandon the longstanding scheme of defence based in Quebec. Only Quebec was considered

capable of defence: in the event of attack, the British forces in North America would retire to the citadel at Quebec and maintain the position until reinforcements could be sent from the mother country. The territory in the interior was considered expendable; if lost temporarily, it could be recovered after the arrival of reinforcements from Great Britain. As late as 1808, Lieutenant Governor Francis Gore of Upper Canada, Isaac Brock and Sir James Craig, newly arrived in the country, could agree that it was impossible to defend Upper Canada against anything except "a partial or sudden incursion."¹

The Quebec theory of defence began to meet challenge with the creation of the separate upper province in 1791. The first civil governor, John Graves Simcoe, unwilling to see his charge condemned so readily, protested that defence was possible as long as control of the lakes and the vital line of communication down the St. Lawrence to Montreal were retained. And Brock, in a similar position in 1811, claimed that by maintaining control of the lakes and obtaining the loyal service of the western tribes, a stand could be taken.

On the eve of the war, however, the Quebec theory, only slightly qualified, prevailed. "Quebec is the only permanent Fortress in the Canadas," wrote Sir George Prevost, the commander-in-chief of the British forces in the Canadas in May, 1812.

It is the Key to the whole and must be maintained:- To the final defence of this position, every other Military operation ought to become subservient, and the retreat of the Troops upon Quebec must be the primary consideration

In framing a general out line of Cooperation for defence with the Forces in Upper Canada, commensurate with our deficiency in strength, I have considered the preservation of Quebec as the first object, and to which all other must be subordinate:- Defective as Quebec is, it is the only Post that can be considered as tenable for a moment, the preservation of it being of the utmost consequence to the Canadas, as the door of entry for that Force The King's Government might find it expedient to send for the recovery of both, or either of these Provinces, altho' the pressure of the movement in the present extended range of Warfare might not allow the sending of that force which would defend both, therefore considering Quebec in this view, its importance can at once be appreciated.

If the Americans are determined to attack Canada, it would be in vain the General should flatter himself with the hopes of making an effectual defence of the open Country, unless powerfully assisted from Home:- All predatory or ill concerted attacks undertaken presumptuously and without sufficient means, can be resisted and repulsed:- Still this must be done with caution, that the resources, for a future exertion, the defence of Quebec may be unexhausted.²

However, Prevost made some provisions for the defence of the upper country and especially of the St. Lawrence. "In the event of Hostilities," he noted, "it will be indispensably necessary for the preservation of a Communication between the Lower and the Upper Province, to establish some

strong Post for the Regulars and Militia, to secure the Navigation of the St. Lawrence above the Rapids to Lake Ontario."³ Whether Upper Canada were defended or abandoned, the successful defence of the country depended upon the St. Lawrence; at all costs, the line of communication and supply between Montreal and the inland garrisons must be maintained, not only to ensure possession of the upper province but to keep open an avenue for an orderly retreat to Quebec in the event of a serious attack.

The defence of the Great Lakes and St. Lawrence system was an object of immediate concern. In July, Prevost reinforced Kingston "for the preservation of the communication between Upper and Lower Canada, thereby securing, in an extreme case of being attacked by an overwhelming force, a retreat for the Regulars & Loyalists embodied."⁴ On the Great Lakes, the Provincial Marine was responsible for keeping open the flow of supplies. The upper St. Lawrence presented a more difficult problem. In addition to the physical difficulties of transporting supplies over the turbulent waters, there was the threat of attack from American raiding parties: three-quarters of the river's length was vulnerable to attack from the south. Colonel Robert Lethbridge, Inspecting Field Officer of Militia, was appointed to take command of Kingston and the surrounding district. Included in his charge was the line of communication with Lower Canada. He was ordered to report on the state of the various militia units and to recommend positions where defences should be established. A convoy system would be introduced to protect the bateaux carrying supplies along the river. Because the ordinary militia was considered inefficient and usually lacked arms, Lethbridge recommended that only the flank companies be used

to guard the river channel and to provide escorts for the convoys of bateaux and sleighs.⁵

Coteau du Lac was an important cog in the defence and transportation systems, and the early months, July and August, established the role which it would have for the remainder of the war. The position itself, unlike the St. Lawrence along most of its length, was not particularly vulnerable to attack directly from the south; a part of Lower Canada lay below the St. Lawrence at this point and settlement had not yet moved extensively into the adjacent territory of the United States. Nor was there an easy land invasion route to the post. Invasion, if it came, would move down the St. Lawrence past Kingston and Prescott where the British now concentrated to defend against an attack from the American settlements directly across the river. Later in 1813, more elaborate fortifications would be erected at Coteau du Lac to defend the river passage in the event of a successful turning of the upper defences.

The principal activity at Coteau du Lac was involved with the transportation system. Throughout the war, every allotment of provisions, equipment or ammunition and detachment of troops sent from Quebec to the upper country either marched or was carried past the post in bateaux or sleighs. Protecting the convoys and ensuring their swift passage were the main concerns of the garrison.

The bateaux travelling up from Lachine were organized into convoys and protected in their passage by militia. A special corps of voyageurs (disbanded in 1813) was formed from employees of the North West Company

and additional bateau men were obtained from the militia of Lower Canada and paid the regular rates for militia service. If available, troops moving inland accompanied the convoys up-river.⁶ Detachments sent from Montreal to reinforce the garrison at Coteau du Lac or other interior posts timed their passage to afford protection for bateaux travelling upstream. In October, for example, when a detachment of Canadian Fencibles was added to the small garrison of Royal Veterans, it was ordered to form an escort for a brigade of boats leaving Lachine.⁷

Although the garrison at Coteau du Lac was reinforced, no efforts had been made to strengthen the defences. Neglect formed a general pattern throughout the province where no important permanent defensive measures had been taken. The early months of the war were marked with a lame-duck atmosphere. Prevost was reluctant to undertake offensive measures and indeed was under direct orders to avoid them; the feeling of the Quebec command, echoed in Whitehall, was that a long and bitter conflict with the United States could still be avoided. At first their thinking appeared to have a solid basis. Detroit and Michilimackinac had been captured by the British and the abortive American invasion on the Niagara peninsula had been turned back at Queenston Heights; but otherwise an ineffective American command had been unable to mount a sustained offensive. By December, however, it became patently clear that "Mr. Madison's War" would not be resolved by the confused and ineffective skirmishing of the early months.

In December, Prevost's thoughts turned to a more permanent scheme of defence and preparation for a war which threatened to be of long

duration. Major Hughes, R.E., was ordered to Quebec to relieve the commanding Royal Engineer, Lieutenant Colonel Ralph Henry Bruyères for "an extensive tour, for inspecting the works of fortification in the two provinces."⁸ Bruyères set out in January and wrote from Prescott on the fourteenth to report his progress from Lachine. Various measures should be implemented for the defence of the river route: Mill Point at the Cedars should be provided with a fortified encampment; a blockhouse should be constructed at the River Raisin, and Glengarry House and the town of Cornwall should be fortified. Coteau du Lac was selected for special consideration.

Coteau du Lac nine miles above the village of the Cedars is a most essential and important position which effectually commands the passage of the Rapids at this point. This Post should be strengthened and occupied as soon as possible. I recommend to construct a Block House on the Point to contain 200 men, also to enclose and entrench the position; to be armed with two 12 pdrs and two brass 6 pdrs to serve as moveable guns, to take post on some very commanding and projecting points between that Post, and the Cascades. It will be further necessary to occupy the upper end of Prison Island immediately opposite the Coteau with a Block House to contain 40 men and a small Battery in front for two 12 pdrs. to command the Channel. The present Block Houses and Buildings on this point are totally decayed and unserviceable.⁹

The improvements recommended for Coteau du Lac exceeded by far those suggested for other positions along the St. Lawrence below Cornwall; Coteau du Lac already significant for its role in transportation was selected as a major defensive position on that part of the river.

No time was lost in the implementation of Bruyères' suggested scheme of defence. Early in April, Captain J. Gray of the 5th Embodied Militia was appointed assistant engineer "to superintend and carry on the works at Coteau du Lac (Capt. Gray is a good architect, has always employed himself in carrying on extensive improvements and is in every respect perfectly competent to conduct public works of any extent or importance)."¹⁰ From then until the end of the war, requests were made for more artificers and materials for the construction work. The completed fortifications incorporated many of the features of Bruyères' earlier suggestions, but in the end proved more extensive than even he had planned.¹¹

The artificers and labourers involved in the construction swelled the already growing number of men at the post. The garrison changed frequently: because it was located on the main transportation line to the upper province and was an important staging point on the route, Coteau du Lac was often chosen as a stopover for troops on their way to the interior. Their period of residence varied from a few days to a few months. For instance, in May, 1813, two companies of the 104th Regiment, fresh from their winter march from New Brunswick, were stationed at Coteau du Lac while the rest of the regiment continued on to Kingston. And four days later, on the seventh of May, the grenadier company of the 100th Regiment was ordered there.¹² Bolstering the transient regulars were detachments

of militia which were ordered into garrison when a threat appeared on the river.

For most of 1813, frequent states of alarm brought Coteau du Lac into its most direct contact with the war. In February, for instance, when Captain Benjamin Forsyth crossed the ice and raided Gananoque and Elizabethtown, a general alarm was sent up and down the river and a convoy of sleighs was stopped at Coteau du Lac. "I have though it prudent," wrote De Rottenburg in his report of the raid, "to stop at Coteau du Lac a transport of 40 sleighs with ordnance and naval stores and the five twelve pounders for Prescott until a sufficient force can be spared from the Glengarry and Cornwall militia to protect it I shall also reinforce Coteau du Lac with the Vaudreuil Division of Sedentary Militia."¹³ The incidents were frequent reminders of the war conducted in the upper border regions, and the steady stream of troops and supplies moving by the post indicated the magnitude of the struggle.¹⁴ In the fall of 1813, however, the war was brought much closer to the fort.

Ineffective leadership and planning on the part of the American military leaders had made the war a series of skirmishes and raids; little had been accomplished by the summer of 1813 toward achieving their avowed intention of conquering Canada. Late in 1813, however, American strategy began to take decisive steps in a new direction which directly affected the British position at Coteau du Lac. In August, the new American Secretary of War, John Armstrong, concluded that only an attack on Kingston and ultimately on Montreal would bring control of the upper British province and eventually of the whole of Canada. Two forces would be used: Major General James Wilkinson would collect a large force in

Sacket's Harbour and travel by bateau down the St. Lawrence toward Montreal; another under Major General Wade Hampton would march north from Lake Champlain. The two would converge for the attack on Montreal.

The British command took steps to offset the American movements. News of the concentration of the American forces at Sacket's Harbour reached Major General De Rottenburg, the commander of the forces in Upper Canada, by way of American deserters. He immediately established his own headquarters in Kingston, which was reinforced. In Lower Canada, Prevost awaited the approach of Hampton from the south.

In the early part of October, Prevost was uncertain of Wilkinson's intentions; in fact the American command itself had not yet determined whether Kingston or Montreal should be the primary objective. As a precaution Prevost took steps to establish a position on the lower St. Lawrence where a defence of the river route could be made in the event that Wilkinson bypassed Kingston and Prescott. On 8 October he issued a general order setting up his second line of defence in which Coteau du Lac was selected for special attention.¹⁵ Both channels of the river at Coteau du Lac would be defended. The Caughnawaga Indians and Lieutenant Boucherville's battalion would reinforce Colonel Dechambault in the defence of the Beauharnois channel. The channel adjacent to the fort would be defended by Colonel Hercules Scott who had already been appointed commander of the fort with a garrison made up of a detachment of the 103rd, Scott's regiment. Both Scott and Colonel Dechambault were "directed to oppose every possible resistance to the Enemy's passing their respective posts." If the enemy should succeed in turning their defences they would follow to reinforce Montreal.

The planning for the American campaign was marked by inefficiency and bungling. Hampton, on very poor personal relations with Wilkinson, was a most reluctant participant; Wilkinson, racked with fever and commanding little respect from his men, tarried in Sacket's Harbour as he collected troops for his eventual descent of the river. Finally on the night of 17 October, Wilkinson's force embarked in bateaux and sailed from Sacket's Harbour with Montreal as its objective. Tossed about by gale-force winds and snowstorms, the flotilla remained in the Thousand Islands until 5 November. Wilkinson, his communications cut off, had no way of hearing of Hampton's repulse at Chateauguay on 26 October and his subsequent decision to retire to American territory. Not realizing that he was now alone, Wilkinson continued slowly downstream.

As soon as it became apparent that Kingston was not Wilkinson's objective, De Rottenburg despatched detachments of the 49th and 89th regiments under Lieutenant Colonel Joseph W. Morrison in pursuit; a flotilla of gunboats under Captain William Howe Mulcaster provided support. Wilkinson passed Prescott on the night of 8 November and Morrison, quickly closing the gap between the two armies, arrived there the following day. After collecting reinforcements at Fort Wellington, he continued down the river. On the morning of 11 November he engaged and defeated the rear guard of the American army under Brigadier General John Parke Boyd in the Battle of Chrysler's Farm.

In the meantime work had continued on the bolstering of the defences at Coteau du Lac. In the early part of October, Scott had apparently written asking for additional guns and men. The Adjutant General refused

his request on the grounds that the post was already "better provided & more capable of defence than almost any part of this extensive frontier," and demands from other quarters made further aid impossible. Scott was to resist any attempt by the enemy to force passage and in the event that Wilkinson should pass, he should follow and attempt to throw himself into Montreal.¹⁶ The local militia was to be allowed to attend to its farms and to be called out only in the event of emergency. As Wilkinson approached, however, Coteau du Lac was reinforced. Captain Jackson was sent with a detachment of Royal Artillery to relieve the Montreal Volunteers there on 1 November,¹⁷ and on the third of that month a detachment of Canadian Fencibles was ordered to march to Coteau du Lac.¹⁸

As Wilkinson floundered through the Thousand Islands in the early part of November, several troop movements were made to prepare for his arrival. Scott was ordered to advance to Cornwall, leaving Coteau du Lac with a "sufficient Garrison of the Marine Battalion."¹⁹ Within a week, however, as Wilkinson proceeded down the river, it became evident that Montreal was his objective and the activity was feverish as the force at Coteau du Lac awaited his approach. With Kingston bypassed and Wilkinson's safe passage by the guns of Fort Wellington in Prescott, there remained only Coteau du Lac before the weak defences of Montreal.

By 11 November, Scott had returned to Coteau du Lac. Apparently unaware of the battle then being fought upstream at Chrysler's Farm, he outlined his preparations for defence. The whole of the Glengarry militia was expected by 2 o'clock the next day. He requested permission to move the two 24-pounders from the Cedars for "if the enemy is able to pass our

position at the Coteau, it is not to be supposed that two twenty-four pounders remaining at the Cedars will stop their passage. They will certainly land below Coteau du Lac and take those guns."²⁰ With a great deal of bravado, Scott claimed that his force would have no trouble stopping the Americans if they should reach that point in their descent, and if they should pass they would be destroyed in the pincer of his force and that at Montreal.²¹ A flotilla was being gathered at Coteau du Lac and the south channel was blocked so the enemy would have to pass the guns of the fort on their way to Montreal.²² Probably rather reluctantly, Scott acknowledged receipt of the letter appointing "Major General Riall to this command," recognition of the importance given to Coteau du Lac for stopping the enemy's progress. Scott was to proceed with his plans for defence until Riall's arrival and then return to the command of his detachment of 350 men.

Troops continued to congregate at Coteau du Lac as Wilkinson's advance guard under Brigadier General Jacob Brown approached Cornwall. Lieutenant Colonel James Dennis sent his stores and provisions from Cornwall to the fort and retreated to McMartin's Mills, and then Coteau du Lac after the action at Crysler's Farm.²³ The fort became the rallying point for the British forces. The extensive preparations proved to be of no avail, however.

After the engagement at Crysler's Farm, the British command was at a loss as to the intentions of Major General Wilkinson. The battle should have offered at most a minor setback to the enemy command; only a portion of Wilkinson's force had actually been engaged. The British could be

excused for thinking that Wilkinson, after a slight pause, would continue down the river. On the night of 12 November, the day after the battle, the American force crossed the river to St. Regis. As far as British intelligence could determine, Wilkinson was still planning to continue to Montreal. Morrison's land force and Mulcaster's flotilla would continue their watchdog function, moving parallel to the American army as far as Coteau du Lac where a stand would be made.²⁴ When Prevost reported the victory at Chrysler's Farm to Bathurst on 15 November, he was still uncertain as to Wilkinson's plans, but in the event that the latter continued his invasion he would be blocked at Coteau du Lac.

But the state of the weather is becoming so highly unfavorable to combined operations that unless Genl. Wilkinson succeeds in a very few days in forcing the position I have caused to be occupied at the Rapids of the Coteau du Lac & on the Beauharnois Channel, which I have no reason to expect he will do or that he can make his way into the Province by either of the other routes I have mentioned which I think equally improbable, the American Army must soon be compelled by the severity of the season to go into Winter Quarters & to abandon all thoughts of the Conquest of Canada for this Campaign.²⁵

In fact, there was no great cause for concern, although Prevost had no way of knowing this at the time. After crossing to St. Regis, Wilkinson had received word from Wade Hampton that he had no intention of combining with him. Using Hampton's refusal to join him as an excuse, Wilkinson called off the campaign and went into winter quarters at French

Mills on the Salmon River. There is some indication that the British force gathering at Coteau du Lac had influenced the decision. A deserter from the American army testified that no apprehension was felt in the American camp until the army reached Cornwall "when the strength of the Coteau became a subject of alarm. He heard some officers say that many of them would smell hell" in passing Coteau du Lac.²⁶ Benson Lossing noted that news of the concentration of a considerable British force at Coteau du Lac preceded the move to the Salmon River.²⁷

As soon as it became apparent that the American force had settled down in winter quarters at French Mills, the British position at Cornwall was reinforced to keep a careful watch on the activity in the American camp. Most of the troops at Coteau du Lac were moved to other locations. Major General Riall was ordered to proceed to Kingston and place himself under the "orders of Major General de Rottenburg as soon as the necessary arrangements are made for carrying into effect the distribution of the troops assembled at Coteau du Lac."²⁸ Three companies of the 5th Battalion embodied militia together with the detachment of the 103rd were to garrison the post over the winter. Mulcaster's gunboats were left there in charge of an officer and a few men.²⁹

The American camp was kept under close surveillance over the winter. Scott, at Coteau du Lac, sensing that the American soldiers would be discouraged by the badly run campaign and annoyed that they were not receiving their regular pay, suggested that the British government encourage desertion by offering to pay the arrears of any American soldiers. Any American deserters would not be made to fight against their

own country-men. Scott was given only cautious approval. He was allowed to proceed only on the understanding that "this will be considered as an offer which you as an Officer Commanding an outpost feels justified in making" rather than an official government policy.³⁰ The success of his project is not known.

Scott did have one last moment of tarnished glory before he left his command. Early in March, orders were given for the detachment of the 103rd to march to Kingston. It was to be relieved by a detachment of the 89th Regiment.³¹ Just before Scott moved out, however, Wilkinson began to evacuate his winter quarters and to shift to Plattsburg. Upon hearing of the enemy's movement, Scott led detachments of the 103rd and 89th to the Salmon River and followed the American army in its retreat to within a few miles of Plattsburg. Although about 100 sleigh loads of American provisions and stores were captured, their remaining blockhouses, barracks and boats destroyed, and the enemy harried in his retreat, the expedition was marred by the loss through desertion of 90 men, mainly from Scott's 103rd regiment.³² Nevertheless, the expedition underlined with an air of finality the failure of Wilkinson's invasion and the Americans abandoned all pretense of a renewal of the march in the spring.

Although Wilkinson's slow descent of the St. Lawrence had disrupted travel on the St. Lawrence, communications were restored to near normal conditions after he went into winter quarters, and Coteau du Lac reassumed its importance in the forwarding of supplies. By far the greatest threat to transportation occurred on the Great Lakes, especially Lake Ontario, where James Yeo, the British commodore of the fleet, was waging a

shipbuilding race with the American commodore, Isaac Chauncey, for control of the lake. The stakes were high; control of Lake Erie had been lost in the fall of 1813 and consequently the British were forced to fall back from Detroit. A similar loss of Lake Ontario would mean that the whole of the upper country would have to be abandoned.

Probably because the ship-building facilities at Kingston were already strained to capacity, Yeo proposed that six gunboats be constructed at Coteau du Lac. Mulcaster's fleet had been left there in the fall of 1813; in February, Captain Daniel Pring was sent to superintend them.³³ Facilities existed at the post for repairing boats and these could be converted for boat building. By January, two gunboats had been laid down and were in progress using shipwrights originally intended for Kingston.³⁴ But in February, when four gunboats were under construction at the post, the work was discontinued so the shipwrights could be sent to Kingston to assist in the major ship construction in Yeo's race for control of Lake Ontario. Despite the setback, some or all of the gunboats were completed by June when they were handed over to seamen passing through Coteau du Lac on their way to Kingston.³⁵

The race for control of Lake Ontario placed additional strains on the already hard-pressed transportation system. Yeo was utterly dependent upon the supply line for his shipbuilding, and his predicament reflected the importance of the line of supply during the whole of the war. Every fitting, piece of equipment and armament used in the construction of his vessels and all the seamen employed to man them had to move up the St. Lawrence. In at least one case, the pre-cut members of an entire vessel

were wrested over the long and difficult route. The close connection between supply and control of the lakes was apparent to Prevost who wrote to Yeo, "The most incipient exertions of every Depart. concerned with the transport service are making to forward the articles which you have required for the equipment and armament of the new ship & I most sincerely hope our endeavours to ensure to your squadron a decided superiority will be successful."³⁶

The transportation line was a long one, stretching all the way from the ports of England to Quebec and then to the interior. All the supplies of war had to be carried the full length of the route. The long line of supply placed the British command at a distinct disadvantage. American settlements on the lakes were connected directly with the industrial centres of New England and Pennsylvania by a route which was relatively protected from attack. In contrast, the St. Lawrence lay exposed along most of its length. That Yeo was able to maintain control of Lake Ontario until the end of the war could be attributed to the successful operation of the St. Lawrence line of supply as much as to the prowess of his lake captains. And the same could be said of the conduct of the entire war. This was a battle of logistics as much as it was one of arms. Coteau du Lac and the other positions on the St. Lawrence played as important a part in the war as the beleaguered posts of the Niagara frontier.

The activity at the post grew more intense as the war drew to a close. The garrisons at the fort changed frequently as more and more regiments arrived from England fresh from the European war. It became common for companies of the regiments to be stationed a short time at Coteau du Lac

on their way to the Niagara front or other forts in the interior. In the meantime, construction of the fort moved ahead quickly and was nearing completion.

The war, for all intents and purposes, ended 1 August 1814, and the conversion of the country to a peacetime operation began. Work started almost immediately on the canal at Coteau to enlarge it and to better equip it to handle the peacetime flow of commerce.

Post-War Period

The years after the war saw both the zenith and demise of the canal and fort at Coteau du Lac. The number of private bateaux and Durham boats passing through the canal was the largest in the early 1820s; and yet, there were indications that the canal had reached the limit of its potential. Increasing prosperity brought a demand for better facilities along the river, a demand for more extensive improvements than could be offered by the existing St. Lawrence canals. At the same time the post-war years brought a rapid decline in the defensive value of the position at Coteau du Lac.

By 1815, the fortifications proposed early in 1813 had been completed. The extensive earthworks, the new buildings and facilities and numerous gun emplacements presented an impressive defence; unfortunately they were finished only as the war ended, an expensive tribute to the patience of the British purse. The war was over. The easing out of the wartime establishment began immediately as the regulars were recalled to England and the militia returned to their homes and to peacetime production. The river reverted to civilian use; only the fort remained as a reminder of the recent military activity and to provide a modicum of defence. Within two years the garrison was reduced to "about half a dozen of soldiers."¹ By 1820 all the guns were dismounted.²

The new orientation was reflected in a shift in activity at Coteau du Lac. In 1815, the Royal Engineers turned from the construction of the

fort to "the renewal of the canal & locks."³ The heavy demands of wartime supply had revealed the inadequacies of the existing canal, and with the end of the war spending priorities could be revised to take in navigational improvements. The repairs at Coteau du Lac and the Cedars included a widening of the canals to accommodate "barges" which had been adopted by the merchants in their never-ending search for increased returns.⁴ The work was still not completed in the spring of 1816, and the Royal Staff Corps relieved the engineers in early summer to finish the project.⁵

The nature of the civilian traffic on the river was much the same as it had been before the war, although the growth in numbers and in maturity of the settlements increased the quantity of goods passing through the canal. There was a greater demand for imported goods as the new society became more specialized and took on fresh appetites. Montreal continued to serve as the main entrepôt where the merchants of the interior gathered or dealt through agents to obtain European merchandise, although some Upper Canadian merchants began to import directly from England. Quebec and Montreal were also the clearing-houses for the raw products such as wheat and timber sent down from the upper province for export. Both imported goods and raw materials were shipped on the St. Lawrence.⁶

The post-war years also brought an influx of immigrants, many of whom travelled west by way of the St. Lawrence. Their journey was not a comfortable one, a preparation perhaps for the struggle which awaited them in the backwoods of Upper Canada.⁷ One such traveller, E. A. Talbot, wrote at length of the difficulties of a journey by Durham boat from Montreal to Kingston in 1814.

We were from the 18th of August to the 1st of September in accomplishing this voyage of only 120 miles. I think I may say, without any danger of hyperbole, that, during this short period, each of us encountered greater difficulties, endured more privations, and submitted to stronger proofs of our fortitude, than had been our lot in all the preceding years of our lives. We were obliged by day, in consequence of the great weight of our luggage, to assist the sailors in towing the boat up the rapids, often up to our arm-pits in the water; and, by night, to rest our enervated and shivering limbs on the inhospitable shore of this river of cataracts.⁸

Talbot wrote in greater detail of the whole system of communication from Montreal to Kingston.

I returned to Montreal seven days after my departure from it, and embarked at La Chine, with my father and his settlers, on the 18th day of August, twenty days after our arrival in Quebec.

On account of the shallows immediately below this village, goods and passengers intended for a higher destination up the river, are conveyed by land from Montreal

Owing to the rapidity of the St. Lawrence, immediately above Montreal, ship-navigation terminates at that city. Such is the vehemence of the current, in various places, that it is totally impossible to ascend the river in vessels of ordinary construction. Batteaux, or flat-bottomed boats, narrow at bow

and stern, and made of pine boards, have been found much better adapted to the river than any others. These boats are about forty feet long, and six across the centre, and are navigated by four men and a pilot. Each boat carries about five tons, and is provided with a small mast and sails, - six setting-poles about nine feet long, shod at their lower extremities with iron, which terminates in a sharp point, - an anchor, - and the necessary cooking apparatus. In these boats, all the merchandize destined for Upper Canada is conveyed; and, fitted out in this style, they depart from La Chine, four or five of them generally forming one party. They quickly arrive in Lake St. Louis, which is formed by the junction of the Ottawais, or Grand River, with the St. Lawrence. If the wind happens to blow favourably when they are passing through this Lake, they haul up their sails until they arrive at the Cascades, which are about thirty miles from Montreal.

At the Cascades a short canal has been cut and locks formed by Government, through which the vessels pass, till they attain the head of these rapids, after which they proceed without departing from the river before they arrive at the Cedars, where again by means of other locks, they ascend the most difficult part of the rapids. The current between the Cascades and the Cedars is so very impetuous, that the boat-men are obliged to have recourse to their setting-poles, which they fix in the bed of the river; and by the pressure of each man upon

his own instrument, they propel the boats with astonishing celerity. These exertions, though fatiguing in the extreme, they are often obliged to continue for several hours without intermission; and, not unfrequently even their best endeavours in this way prove abortive. When this is the case, they make a rope fast to the bow of the boat; and, leaving only the pilot on board, they plunge into the water and tow her by main strength up the foaming cataracts. This is the manner in which they perform the arduous passage, which, though only 120 miles, they seldom accomplish in less than ten days. How the men who are employed in this difficult navigation exist without ruining their constitutions, is a mystery which I am utterly unable to explain. They are compelled, almost every hour, when actually melting with heat and fainting through fatigue, to jump into the water, frequently up to their arm-pits, and to remain in it towing the boats, until they are completely chilled. They then have recourse to the aid of ardent spirits, of which on all occasions they freely partake, and, in a few minutes, are once more bathed in perspiration. The principal rapids between Montreal and Prescott, are the Cedars and the Cascades already mentioned, the Coteau du Lac, and the Long Sault, the latter of which are about nine miles in extent; and, though they are seldom ascended in less than a day, boats have been known to descend through their whole length in fifteen minutes.

While about 140 of the settlers took their passage from La Chine in what the Canadians call "Durham-boats," my father and

his family, with the remainder of the settlers, embarked in a vessel of the same description. The accommodations which this boat afforded was so poor, that our situation, during the thirteen days of our voyage from La Chine to Prescott, was in reality 'below the reach of envy'. To make room for my mother and the children, in the wretched little hole of a cabin, my brother and I were frequently obliged to sleep on the shore in the open air.⁹

There was scarcely a traveller who did not mention the hardships suffered on the journey inland. Their complaints were added to those of the merchants who were fast becoming dissatisfied with the existing St. Lawrence system.

The canal at Coteau-du-Lac and others along the St. Lawrence offered a solution to the problem of river navigation in the 18th century; by the 1820s the canals were outdated. During the 18th century, the bateau and Durham boat had satisfied the demands placed upon the St. Lawrence system, but with the increase in trade and travel in the years following the War of 1812, they were no longer adequate. Increasing pressure built up at both ends of the upper St. Lawrence emphasizing the inadequacies of the existing canals. In 1809 The Accommodation, John Molson's first steamboat, linked Montreal and Quebec, and by 1821 half a dozen steamboats were making the run. On the lower Great Lakes a growing fleet of schooners was expanded by the addition of steamboats shortly after the war.¹⁰ The improvements on the Great Lakes and lower St. Lawrence brought a clamour for similar improvements on the upper parts of the river to allow continuous navigation by the larger vessels.

The weaknesses of the existing St. Lawrence route became all the more apparent in comparison with the competing Hudson River system, its traditional rival in the exploitation of the central interior. The merchants of the St. Lawrence aspired to control not only the trade and commerce of Upper Canada but also that of the American settlements bordering the Great Lakes basin. They hoped, by exploiting a preference for colonial goods in British markets and a more direct route to the seaboard, to obtain the marketing trade of the American north. For this they required a more efficient transportation system than that offered by their American counterparts. They watched with growing apprehension the proposal and subsequent construction of the Erie Canal which would connect Lake Erie, Lake Ontario and Lake Champlain with the Hudson River and New York. By 1825 it was completed, and in the first year of operation it proved that the fears of the Canadian merchants were well founded. Over 13,000 boats and rafts passed over the Erie Canal that year, giving New York the handling trade coveted by Montreal.¹¹ The Canadian merchants were now threatened in their own exclusive preserve.

The challenge was not ignored by the Canadian merchants. In 1821, construction of the Lachine Canal began, giving expression to an idea which had lingered since the beginning of the 18th century. Because of the Lachine rapids, effective navigation of the upper St. Lawrence could only commence at the western end of Montreal Island. All goods for the interior had to be carried by land from Montreal to the point of embarkation. After 1825 when the canal was completed, the loaded Durham boats and bateaux could make a direct connection with Atlantic transports. In

Upper Canada William Hamilton Merritt pressed for the construction of the Welland Canal to link Lakes Erie and Ontario. Begun in 1825, the canal carried its first vessel in 1829.

But these were improvements of the outer reaches of the system. The main bottleneck continued to be the upper St. Lawrence between Lake St. Louis and Lake Ontario. It was a neglected area located between the more settled parts of the upper and lower provinces. Neither was able or willing to undertake the development alone, and yet any effort at a cooperative undertaking failed to pass the planning stages. In 1819, a joint report of the assemblies of Upper and Lower Canada recommended a uniform system of canals for the St. Lawrence with a minimum width of 28 feet and depth of 4 feet. The report was shelved as Lower Canada became involved in the construction of the Lachine Canal. An attempt was made to combine the financial strength of the two provinces in 1821-22 with the introduction of the Union Bill which carried with it the promise of improved and cheaper transport. But it, too, was shelved, and with it the possibility of improvement by the colonies themselves.

The British government, for its part, refused to undertake any massive expenditure on the St. Lawrence. The canals at Coteau du Lac and other rapids on the St. Lawrence had been constructed as military projects, although they were used by merchants and conveyers upon payment of tolls. The returns were allocated to the financing of annual repairs. By the 1820s these had become significant as the canals grew older and it became apparent that extensive expenditure would be necessary to bring them up to date. The expensive outlay to convert the system for use by barges or

steamboats would not be tolerated by a British public coming under the influence of laissez faire doctrines.

At Coteau-du-Lac significant repairs were carried out annually and especially in 1825-26, but by the end of the 1820s, the new attitude could be seen in the approach of the British government. Finally, the superintendent of canals, opposed an improvement proposed by the overseer of the canals at Coteau du Lac because

the canals and Locks in question are now in a dilapidated state and must soon undergo a very efficient repair — would it not therefore be an useless expenditure to be improving upon old works, making new Gates, bracing them from the sides and making flying or draw bridges, when perhaps in a short time it might be considered necessary to facilitate the General Commerce and intercourse of these colonies to increase the size of the canals in accordance with other improvements which might take place upon the navigation of the St. Lawrence.¹²

Finlay himself was held partially responsible for the evident failure of the returns from the canals to meet the rising costs of maintenance, a fact which he attempted to counter unsuccessfully by increasing the tolls on canals which were already suffering from a decrease in traffic. An old man, he had his office in Lachine where formerly the bateaux and Durham boats left for the interior. With the construction of the Lachine Canal it was inconvenient for the conveyers to purchase toll tickets there and yet he refused to move. His intransigence brought a transfer

of the St. Lawrence canals to the Commissary Department in 1828. Routh, the Commissary General, had been extremely critical of Finlay's conduct as superintendent of canals and jumped into his new responsibility with enthusiasm: the canals would be open on Sunday; tolls would drop to the pre-1827 level, and tickets would be issued at the commissary office in Montreal. These reforms and others were proposed to make use of the canals easier and operation more efficient.¹³ But a change in organization alone could not overcome the physical decline of the canals and their inability to meet contemporary needs.

In 1831 the whole problem came to the fore. Captain R. S. Piper, C. R. E., Montreal District, an engineer sent to inspect the canals, reported that they were in a state of "extreme dilapidation and Decay." He complained that the men in charge showed negligence

not only in opening and shutting the gates, but in permitting boats to be forced through in a very negligent manner when too large to be freely admitted by the use of extreme force, and in some instances having recourse to the assistance of Horses, when the strength of men has been unavailing! -- The Bows of Boats in many instances have been obliged to be cut away an inch on either side to admit of their being hauled through, and then only I can assert, without the possibility of contradiction, with extraordinary efforts.¹⁴

He recommended that the size of the boats be restricted to 12 feet 3 inches, one inch less than the minimum width of the canal at Coteau du Lac. One month later, Piper wrote a more realistic assessment which

placed the blame on the size of the canals rather than the merchants and their boats. The canals had been constructed chiefly for bateaux,

but the trade has so encreased and is so encreasing that they are quite unequal under their present construction to meet the commercial intercourse between the two Provinces. They only admit one Durham boat at a time and boats of a beam wider than 12 ft. 3 in. cannot pass at all.¹⁵

Piper suggested that the colony and not the British government should build a more adequate canal; however, he did submit estimates for a new canal to parallel the old one at Coteau du Lac to increase the capacity.¹⁶ Routh suggested that the existing canals be handed over to the governments of Upper and Lower Canada and that they be responsible for bringing them up to date. Viscount Goderich at the Colonial Office was "certainly not prepared to recommend to the treasury, the expenditure" necessary to improve the canals but was hesitant about presenting the canals to the colonial governments.¹⁷ In the meantime, Routh was prepared to move ahead with repairs on the canals, but recommended that expenditure should be limited as there were various colonial projects in the offing.¹⁸

The reluctance of the British government to commit funds to the improvement of the St. Lawrence reflected a shift in interest to the Ottawa-Rideau river route which had been taken gradually after the War of 1812. One of the lessons of the war had been the vulnerability of the St. Lawrence line of supply to attack from the south. If the British government expended extensive amounts of money on public works, it preferred to invest in a project which would be safe and protected from

attack. The first plans for the exploitation of the Ottawa-Rideau route had been set out as early as the War of 1812. Between then and 1827, when construction of the Rideau Canal actually began, a number of surveys and plans were submitted to the British government. It was clear from the beginning that such a work was military in design and function; only after a great deal of persuasion by Colonel John By, the canal's builder, were the locks increased to a size which would be useful commercially. The Rideau Canal, officially opened in 1832, together with the Ottawa canals at Grenville and Carillon, provided an alternate route from Montreal to Kingston.¹⁹

The new canals were never popular with the merchants trading between Upper and Lower Canada. The Rideau route was longer and not as direct. It passed through relatively uninhabited areas of the country; and control of the shipping on the canal passed into the hands of one firm which raised the rates to almost prohibitive levels. Nevertheless, a circular transport system did develop with merchants shipping goods from Montreal to the markets of the upper province by way of the Ottawa and Rideau canals to Kingston, and returning on the St. Lawrence, shooting the rapids on their way downstream.²⁰

But the Rideau Canal remained primarily a military installation, providing a protected route to the interior in the event of another war with the United States. The use of the system by the merchants was looked upon as a temporary expedient until the St. Lawrence could be made navigable. One thing was certain, however; the expense of the Ottawa-Rideau system -- over £1,000,000 -- made the British Parliament hesitant

to become involved in any further colonial projects. In fact, it dried up an important source of funds and forced the colonies to look inward for development finances.

Agitation continued for the improvement of the St. Lawrence route as "a mania for canalling seemed to possess the people."²¹ Canals were looked upon as the magic panacea which would pull the Canadas out of the financial doldrums. Periodic reports were submitted to the legislatures proposing plans for the improvement of the river but usually a shortage of funds prevented action. Although construction of the Cornwall Canal was begun by the upper province in 1834, it was not completed until after the union. The provinces were too strapped financially to undertake improvements individually, and political problems prevented their working together. Effective development of the St. Lawrence would have to await the union of the two Canadas; and in fact, the requirements of development contributed to their union.

In the meantime, users of the St. Lawrence began to work around its weaknesses. Steamboats carried travellers through Lake St. Louis to the mouth of the canal at the Cascades. Passengers then travelled by stage the 16 miles to Coteau Landing where another steamboat was waiting at the wharf to carry them farther.²² Freight was carried by land around the river obstacles in the same way. Boats could run the rapids on the trip downstream. The canal at Coteau du Lac was thus bypassed, although some freight and passengers continued to take the less luxurious passage by Durham boat and bateau upstream through the canals.

The importance of Coteau du Lac as a military position was also on the decline, if not undermined completely. As early as 1825, ten years after the fort had been constructed, it was dismissed as useless by a commission inspecting the military positions in Canada. The fort was described as a "perfect ruin" which would cost a "very considerable sum to be put in order." With so many essential positions requiring defence in British North America it was felt that "interests of a doubtful or secondary nature must be sacrificed."²³ If it were felt necessary to defend the passage between Lake St. Francis and Lake St. Louis, the height above Split Rock would be a better choice than Coteau du Lac, against which the commission had more specific objections.

Our military objections to Fôrt Coteau-du-Lac are in the first instance, the circumstance of the Lock being in the middle of the Fort, by which means Boatmen and others having necessarily access at all hours become too well acquainted with the works and the Garrison, the latter are in consequence liable to be seduced or surprized. In the second place a Work at Split Rock being further removed from the navigable part of the Waters would require more time and exertions to be taken.

The construction of the Rideau Canal further undermined the significance of Coteau du Lac. The British authorities now depended upon the Rideau route for the transport of supplies in the event of war. In effect, the defence of the St. Lawrence would no longer be considered of utmost importance in any defensive strategy.

By the 1830s the principal duties of the small garrison at Coteau du Lac, consisting of one corporal or lance corporal and three privates, were "to assist the officers of His Majesty's customs in the prevention of smuggling and secondly guarding the locks, public stores and buildings at this station."²⁴ In 1835, a further indication of the decline was given when it was decided that "the duties at Coteau du Lac are not of sufficient importance for the employment of a Barracks Master."²⁵ The duties were assumed by Barracks Sergeant Bell, who was ordered to proceed to Coteau du Lac in July.²⁶

The 1830s were years of inadequacy for the post at Coteau du Lac. As a military position, the fort had no important function in official British strategy. The canal, like all the military canals on the St. Lawrence, was unable to satisfy the needs of the growing commercial community. The British government was unwilling to expend the funds necessary to modernize the transportation system and the colonies were unequal to the task on their own. Even such projects as were undertaken by the individual governments of Upper and Lower Canada met increasing criticism in the two colonies. Groups had grown up which vocally criticised the vast expenditure of funds on projects which they felt were of benefit to only a small segment of the population. Throughout the 1830s, discontent grew in the two provinces until 1837-38 when it burst into open uprising.

The Rebellion: A Military Interlude

In the 1830s, the two Canadas found themselves swept slowly, yet undeniably, toward crisis. The pattern was similar in each province as the popular arm of government, the assembly, was pitted against the executive, the council and the governor. The issues were many, having political, social and economic overtones, but in each case the same point was reached: the point where frustration in the achievement of aims led to open and armed insurrection against the established authority. In November and December of 1837, the dissidents turned out in both Upper and Lower Canada to battle for a new order.

In Upper Canada the uprising was easily quelled in a bizarre affair on Yonge Street. In Lower Canada, the fighting was also short-lived, but particularly bloody and unfortunate in character. Riots in Montreal in early November were followed by stringent measures restricting assembly and an unsuccessful effort to arrest the leaders of the agitation. Engagements later in November at St. Charles and St. Denis, the latter a victory for the Patriots, were briskly fought. On 1 December, St. Denis was attacked again and this time taken and burned. The fighting was bitter and of a much more serious nature than the comic opera efforts to the west, and the emotional reactions were much more intense and longer lasting.

The area immediately west of Montreal remained relatively quiet, although a small incident at Beauharnois raised questions concerning the loyalties of the surrounding district. The fort at Coteau du Lac nearby,

although occupied, had only a caretaker garrison of three or four men under Captain Cox, late of the 37th Regiment. Cox apparently asked for authority on 27 November to recruit volunteers to add to his forces. His authority "to raise a company of fifty volunteers for the protection of the Fort at Coteau du Lac & assist in keeping open the communication between Upper and Lower Provinces" was communicated 2 December.¹

The enthusiastic loyal forces appear to have anticipated the granting of authority. Mr. John Simpson, a local magistrate and the collector of customs at Coteau du Lac, brought a group of volunteers to the fort late in November. One of his first acts was to take "it upon himself to give orders for the issue of rations to a number of men collected in the fort for its defence."² This he followed with the seizure of 100 barrels of flour from a passing barge. The flour was the equivalent to the supply of 150 men for 5 months, while there were only 3 persons at Coteau du Lac entitled to rations.³ Simpson also ordered that the guns of the fort be thrown into the river, apparently so they would not fall into the hands of "a rebel party which was organizing in that neighbourhood."⁴

Simpson's enthusiasm was not fully appreciated by the Montreal command. On the same day that they sent authorization for Cox to raise a company of volunteers, they wrote to Simpson giving him a mild reprimand for his failure to follow proper channels and to work through authorized persons in his seizure of the flour.⁵ Two days later, however, the governor's secretary sent an official letter of appreciation to Simpson thanking him for the "great zeal & activity" he had shown in collecting and paying the volunteers.⁶ At the same time he let Simpson know that

the situation was now well in hand under Captain Cox and the corps from Cornwall, and implied that his services were no longer required in the defence of the fort.

By the early part of December, the Honourable P. Vankoughnet was the officer commanding at Coteau du Lac. He was commended for the "prompt manner" in which he had gathered volunteers, probably from the Cornwall area. Arrangements were being made to ship ammunition for the ordnance of the fort.⁷ The increased concern was prompted by the inhabitants of the St. Eustache area who threatened to launch an attack against the fort. Although the uprising at St. Eustache was suppressed 14 December, the concern for Coteau-du-Lac continued. On the nineteenth, word was sent by way of Captain Phillpots, R. E., that 250 stand of arms, accoutrements and ammunition would be delivered shortly⁸ and Phillpots was apparently directed to make recommendations for the strengthening of the fort. Upon his arrival he ordered that the dilapidated octagonal blockhouse on the point be taken down "to prevent the enemy making a lodgement behind it in their intended attack on the fort."⁹ He probably made other recommendations for the fort's protection.

To further strengthen the position, Captain George Bell, Royal Regiment, was appointed commandant of the fort on 3 January. When Bell arrived at Coteau du Lac on the night of 4 January, he was extremely critical of the fort, which he found "in a most defenceless state," and the condition of the volunteers.

I inspected the volunteers and find they are deficient of Clothes & shoes, as well as being quite ignorant of any sort of military

discipline; their officers and non-com officers being incapable of instructing them, I would be glad if you would send me a good non-com officer of the Royals as a drill serjeant. The men are well disposed & I have no doubt but that I will have them an efficient body in a short time -- they have not yet had any pay which they complain of.¹⁰

By discreet inquiry, Bell found the country surrounding the fort "quite tranquil" and the people "well disposed." Although no threat was evident, the apparent absence of an immediate threat did not cause him to relax his vigilance. He requested a drum or bugle to arouse his men in the event of an alarm.

In his memoirs, Bell enlarged upon his own efforts in putting the fort and garrison in order.

I found everything in the greatest disorder, irregularity, confusion, and a total want of system; the Fort in the most defenceless state, the men without the shadow of discipline, eating up Government provisions, and just doing as they pleased. I commenced to work immediately, and to reform abuses, got a drill serjeant, whom I promoted to the rank of serjeant-major, had regular parades and drills, when all officers were present, and drilled in the ranks amongst the men; the guards were regularly mounted, and sentries posted and relieved according to the rule of the service; formed the men into messes, and instead of cooking at all hours during the day, appointed stated

hours for breakfast and dinner; provided them with knives, forks, plates, bowls, & c, and soon got order and regularity established. Superintended the workmen employed by the engineer department in putting the Fort in a state of defence, and in the course of a month had a very respectable, orderly garrison, officers and men well acquainted with their duties.¹¹

With his garrison placed in order, Bell began to recover the cannon and shot from the river where they had been thrown by Simpson early in December. Bell hired two local men to drill out the spikes and mounted two of the cannon on platforms he had built.¹²

Supplementing Bell's efforts, Captain Foster, R. E., visited the site in the last half of January and made an estimate for putting the "old fort at Coteau du Lac into a temporary state of Defence." This recommendation was approved and presumably put into effect.¹³ Most of the suggested alterations were of a temporary nature to meet the passing crisis.

Bell remained at the fort over the winter and continued to recover the cannon from the river. By the spring he had hauled out 14, including those recovered in January, and had mounted them on platforms which he had constructed from materials obtained in the surrounding woods.¹⁴ He described the installation at Coteau du Lac as "a place of great importance, the rapids being in front, and all boats going up the St. Lawrence having to pass through the canal locks in this fortress."¹⁵ He was not as glowing in his description of his period of duty there. "I had

a weary winter of it; but it suited my taste, and gave me a brevit majority. I won my spurs, and it made me joyful."¹⁶ Bell left in the spring.

While Bell was commandant of the fort, the garrison consisted mainly of militia, some of which had been embodied. In January, a company of the Stormont Militia under the general command of Colonel Vankoughnet was stationed there under a Captain Empey. Bell appears to have been replaced first by Major R. Anstruther and then by Major L. Carmichael (Particular Service). The garrison continued to be much the same.¹⁷

Although most of the serious fighting took place in November and December, 1837, the province of Lower Canada continued to be in a "perpetual state of suspense and alarm."¹⁸ Some Patriots had fled across the border to the United States, from which they planned to return with a victorious army. In February, they crossed on their way to attack Montreal, but retreated upon encountering militia units. In November a more serious threat developed, this time attracting 2,500 men to the rebel headquarters at Napierville.¹⁹

The renewal of rebel activity brought changes in the garrison at Coteau du Lac. Early in October when Sir George Arthur, lieutenant-governor of Upper Canada, inspected the various positions on the St. Lawrence, he suggested that Glengarries be stationed at the fort.²⁰ His recommendation was followed as the threat of invasion increased, and two companies of Glengarries were sent down under Captain Fraser.²¹ One week later when a breach of the peace appeared to be imminent, Colborne wrote to the various

commanders at Prescott, Cornwall and Coteau du Lac authorizing them to raise as many volunteers as possible in their districts.²² Major L. Carmichael, who was then commandant of the fort, met an enthusiastic response when Captain McCuaig brought "fifty fine Highlanders" to the fort and increased this number to 88 men when McCuaig was placed in charge of the fort under Captain Cox.²³ At Carmichael's request an official letter was sent by the governor expressing the appreciation of Her Majesty for the patriotic response of McCuaig and his men. When the letter arrived and was read before McCuaig's detachment, it provoked even greater enthusiasm as 57 of the men agreed to serve through the winter until 1 May.²⁴ Captain Fraser's detachment of the Glengarries, bolstered by Captain McCuaig's highlanders, appears to have made up the garrison over the remainder of the winter.

Through 1839, the original crisis atmosphere of the rebellion appears to have abated somewhat, but a garrison was still retained at Coteau du Lac made up for the most part of the Glengarries. However, Captain Cox, with his small detachment of regulars, also appears to have continued to be stationed at the fort. The Glengarries came primarily from Captain Fraser's Regiment.²⁵ Carmichael (now a colonel) was moved back and forth along the St. Lawrence; in October he was at his former command at Coteau du Lac.²⁶ The same arrangement continued in 1840 when there was a move to incorporate the Glengarries for service along the frontier.²⁷

By 1839-40, most of the excitement of the rebellion had dissipated although the lessons of the uprising -- the weakness of the defences in

the Canadas against such an insurgence -- were studied and remedied. Following the rebellion, a number of military installations in Upper and Lower Canada were improved and the garrisons increased in the areas where disaffection had appeared. A confidential report noted that the inhabitants of the seigneuries surrounding Coteau du Lac would have to be "promptly looked after" in the event of another rebellious movement in Lower Canada.²⁸ But in spite of the warning of the confidential report, no efforts were made to improve the defences at Coteau du Lac other than those which had been undertaken during the rebellion itself. Among the various suggestions which were made concerning the defences of the Canadas was a tower proposed for the Cascades (which was not built), but otherwise no changes were made on the upper St. Lawrence. Perhaps it was felt that the improved Fort Wellington at Prescott would be effective enough to protect the whole area.

Nevertheless the rebellion left its legacy of suspicion and wariness. For the decade following 1837, the garrison was not allowed to slip to its low level of the early 1830s. And the rebellion brought a far-sweeping investigation of the conditions which had produced discontent. Lord Durham's report and the subsequent action taken on his recommendations would have far-reaching effects for the St. Lawrence and Coteau du Lac.

Replacement and Decline

Late in May, 1838, John George Lambton, the first Earl of Durham, arrived in Quebec on board the Hastings. With him he carried five commissions under the Great Seal which gave him the power to govern all colonies in British North America and, in addition, the responsibility for recommending solutions to the problems which had given rise to the rebellions. He remained in British North America five frantically busy months, moving about in the troubled society, making observations, reviewing abundant submissions, collecting and digesting information. His Report on the Affairs of British North America was submitted in 1839 after his return to England. One year later he was dead.

Few accepted Durham's report in its entirety: it embraced political, economic and cultural aspects which could scarcely be relished by a single palate. But many of his recommendations — some altered considerably — were adopted to form the basis of the solution to the problems of the Canadas. Central to Durham's report was the recommendation of the union of Upper and Lower Canada, primarily, as Durham noted, to bring about the assimilation of the French Canadians. The cultural struggle between French and English was viewed by him as the major source of friction in the lower province. But the union was also intended to strengthen the two provinces economically and to allow unfettered development of their resources. In 1839, Upper Canada lay prostrate economically, with an impossible public debt of over £1 million, its credit ruined and public works unfinished.

In Lower Canada development had been halted by a recalcitrant assembly, unwilling to vote funds for public works on the St. Lawrence. By uniting the Montreal merchants with those of Upper Canada, the opposition to the expenditure of funds for canal construction and other improvements could be overcome. Through union would also come a stronger financial base.

The union of the two Canadas came into effect 10 February 1841 under the watchful eye of Lord Sydenham, the newly appointed governor, who immediately set about making the political solution a practical entity. A vicious election was fought bringing victory to the ministerial supporters under Sydenham's adroit management. The new parliament was scheduled to meet 13 June.

In his Speech from the Throne, Sydenham announced an imperial guaranteed loan of £1.5 million. The idea of an imperial guarantee had first been advanced by the assembly of Upper Canada in 1838 as a means of relieving the Upper Canadian debt, and Durham recommended a loan to place the united Canadas on a firm financial footing. Now it had been approved; with the backing of the British government the credit of the colony was restored. Union of the Canadas had removed the political obstacles standing in the way of development and the promise of the guaranteed loan now swept away the problem of finance.

Over the next year the terms of the loan were worked out and permission obtained to use the borrowed money, not to refinance the public debt as first intended but to continue old public works and to break ground on new projects. Under Sydenham's direction, acts were passed which provided

for the buying out of private interests involved in the Welland Canal and for the improvement of St. Lawrence navigation. A single board of works was instituted for the whole union and presided over by H. H. Killaly. The basis for development was established, and awaited only the availability of funds in 1843.

With a zeal finally untrammelled, the union government leapt into canal construction. The much delayed Cornwall Canal, started in 1834 by the old province of Upper Canada, was finally completed in 1843 with six locks 200 feet by 55 feet and a 9-foot draught. And by 1847 the Williamsburg canals had been completed, bypassing a set of rapids which were navigable but only with difficulty. Between 1843 and 1848, the Lachine Canal was enlarged to a depth of 9 feet.

By far the most ambitious project was the construction of the Beauharnois Canal between Lake St. Francis and Lake St. Louis. This stretch of the St. Lawrence had long been looked upon as an area requiring a more adequate passage than that afforded by the Coteau canal and the other military canals on the river. In 1834, an engineer, David Mills, acting on the report of the Commission on Canals of 1833, had recommended three larger canals on the north side of the river. This was not acted upon but the pressure continued for some sort of improvement.

With union, the means of construction were suddenly made available and the construction of the Beauharnois Canal could leave the realm of speculative discussion and enter the planning stage. Here was found a controversy between advocates of a route on the north side of the river,

a more defensible location supported by the inhabitants living on the north shore who were dependent upon the traditional communications line, and those who wanted the canal to be constructed on the south side of the river. A not disinterested Edward Gibbon Wakefield, who at this time was acting as agent for the Beauharnois Land Company which would benefit directly from having the canal pass through the Beauharnois seigneurie, played a large part in having the southern route selected. Construction began in 1842 and was finished by 1848, completely bypassing the stretch of the St. Lawrence between Lake St. Francis and Lake St. Louis with its $11\frac{1}{4}$ mile length. The nine locks overcame a difference in level of 82.5 feet with a navigable depth of 9 feet. With its completion the whole of the St. Lawrence from Montreal to Kingston was equipped with canals 9 feet in depth.

Thus the Beauharnois Canal replaced the canal at Coteau du Lac, long obsolete. Still there was reluctance on the part of the British government to abandon the site. A report in the mid-1840s mentioned that the old St. Lawrence bateau canals had been superseded by the Beauharnois, but noted that they "may still be of use in case of accidents happening to that canal (either during peace or war) for the transport of stores & c. to Lake St. Francis."¹ When the Commissariat Department considered handing over the St. Lawrence canals to the provincial government, the Master General and Board of Ordnance refused the transfer on the grounds that the site at Coteau du Lac was still necessary for defensive purposes, a decision taken against a backdrop of uneasy relations between Great Britain and the United States over the Oregon boundary.² Although the

fort was still considered valuable for defensive purposes, in 1846-47 the garrison at the fort consisted only of 15 men which was reduced by the following year to one sergeant and ten rank and file of the Canadian Rifle Regiment.³

In 1851, when the crisis with the United States had passed, the Board of Ordnance decided that the establishment at the canals should be reduced and the canals closed, subject to their use for military purposes.⁴ By the following year the average number of troops stationed at Coteau du Lac had been reduced to eight, although in 1853 there were one sergeant and seven rank and file of the Royal Canadian Rifles and one sergeant and three rank and file of the Royal Artillery stationed there.⁵ In 1853 the detachment consisted only of one sergeant, one corporal and six privates.⁶

By the mid-1850s, the Board of Ordnance was finally prepared to consider giving up the site at Coteau du Lac as it reassessed the military value of a number of ordnance properties throughout Canada East and Canada West. Only those positions which were considered essential for defence and necessary for the small contingent of imperial troops in Canada were retained. The threat of another rebellion or an attack from the south seemed remote. Also there was considerable pressure in England to reduce the expenditure for garrisons within the colonies of the empire. According to the prevailing thought in Great Britain, it was only a matter of time before the colonies would break away from the mother country to assume an independent path. Large expenditures for defence seemed to be unwarranted and unnecessary; the colonies themselves should be

responsible for their defence. Several ordnance and admiralty reserves, including that at Coteau du Lac, were therefore transferred in 1856 to the union government.⁷

The site at Coteau du Lac was given over to the Crown Lands Department, then under the direction of William Coffin. The actual physical takeover of the post was carried out during the next year. Alexander Waddell, the barracks sergeant, continued to reside at the fort with his family to take care of the stores remaining there.⁸ In the meantime, Coffin searched for ways in which to use the site. There was considerable pressure to lease the land for its waterpower potential but Coffin, mindful of military needs, was reluctant to lose possession of the property which he considered as "necessary to the defence of the Province now, as at any former period."⁹ Any lease of the land must carry the rider that the property revert to the government in the event that it was required for defensive purposes. Nevertheless, the property was released for purposes of leasing in May 1857 and during the summer G. F. Baillargé, an engineer with the Public Works Department, was sent to Coteau du Lac to assess its waterpower potential so the Crown Lands Department could know its rental value.¹⁰

Baillargé submitted his report in September 1857.¹¹ He had found three significant sources of waterpower, exploiting the eight- to nine-foot drop in water level in the St. Lawrence; the old channel around the point of land, the canal itself, and the ditch which could be used by making cuts directly through to the St. Lawrence. With minor modifications the three could serve as mill-races which would support one or two mills

each. His plan, plotting the various mills, proposed a significant industrial development but the eventual use of the property never approached Baillargé's ambitious scheme.

By the spring of 1858, the British government prepared to remove the stores from Coteau du Lac. Waddell, whose position as barracks sergeant would end with their removal, wrote to Coffin requesting permission to stay on in the commandant's quarters and offering to serve as caretaker in return.¹² His offer was not accepted, and in September he left for Grand Falls, New Brunswick, to take up new duties. At the end of the month the property at Coteau du Lac was let to "L. Adams Esquire, N. P. and postmaster who lives contiguous to the property, for one year at a rent of sixty dollars, conditional that he restore the premises in their present order."¹³

Adams continued to rent the property which he used for pasturage until 1865 when a William Dixon took over the lease. Apparently Adams was not willing to give up the fort; in May, 1865, Dixon wrote to Coffin complaining that Adams would not allow him on the property.¹⁴ The Adams-Dixon feud was settled in the following year when the property was leased to a third party, Georges Beaudet, a local entrepreneur who planned to build a mill on the site.¹⁵ Beaudet paid \$200 rent, was required to keep the canal in usable condition and the buildings in repair, and was to hand the property over the government immediately in the event of war. Because Beaudet planned to build his mill on the canal, Coffin was reluctant to allow him to use the waterpower, for in the troubled 1860s, war with the United States appeared once more imminent.

Events have occurred too, of late year, which may create a doubt as to the expediency of employing the water power made by the canal at the Coteau Fort in such a way as to preclude the employment of the canal itself. Should the Beauharnois Canal, under any eventuality, be interrupted or destroyed, the usefulness of the Coteau canal for military purposes would arise.¹⁶

Beaudet's lease carried another restriction; that the property should revert to the government on two months notice if the suit of the Honourable De Beaujeu should be decided against the government. M. De Beaujeu the seigneur of Soulanges, claimed that the fort property was rightfully his. The land had been taken without compensation during the American Revolution for the construction of storehouses and the canal. Now that it was no longer required for defensive purposes, it should revert to him or he should receive compensation. The suit against the government dragged on for decades until it was finally decided in favour of the government. In the meantime the government held contested title to the land and De Beaujeu periodically visited the site to assert his claim. In 1863, for instance, he came with his men "and pulled down some of the cut stone in the wall of the barrack and attempted to remove the same."¹⁷ He was stopped by Adams the lessee, but he later returned to quarry stone at the edge of the Delisle River.

In spite of De Beaujeu's suit, Beaudet was allowed to build a sawmill on the north end of the canal. The rest of the buildings dating back to the military occupation of the fort were fast falling into ruins. In 1868,

William Coffin visited the site and recommended that the dilapidated structures be sold for the value of their materials.¹⁸ In 1870, two of the more substantial buildings on the site, the commandant's quarters and commissariat officer's quarters, were destroyed by fire. But not until 1872 was Coffin's advice accepted and the buildings sold in auction.¹⁹ The materials were bought and presumably hauled off to be used elsewhere.

Beaudet continued to operate his mill on the property until the end of the 1880s, although he began to meet stiff competition from steam mills which were erected in the area in the 1870s. In 1880-81, a number of entrepreneurs including Beaudet and Oscar Dunn of Quebec, approached the Department of the Interior with a scheme involving a development of the site similar to that proposed by Baillargé in 1857.²⁰ A lease was issued in Dunn's name in 1881, but Beaudet continued to operate his mill through an agreement with Dunn. The grand industrial scheme proposed by Dunn and his associates was never constructed. Dunn died after a short time with nothing accomplished, and in 1885 the lease was cancelled. Beaudet continued to rent the land for a nominal fee of \$15.²¹

By the end of the 1880s, the government was concerned about the limited returns from Coteau du Lac, a site which they felt contained lucrative mill seats. In 1889, they announced that they planned to place the lease up for auction for a 21-year period.²² Beaudet obtained permission to remove his mill and presumably did so.²³ However when a group of "capitalists" expressed interest in the land for the development of its waterpower, it was told that the land was not available for it might be required for canal construction;²⁴ and when construction of the

Soulanges Canal began in 1891, the land at Coteau-du-Lac was transferred to the Department of Railways and Canals which required the waterpower "for various purposes in connection with the new canal."²⁵ When a request was made for the land in 1906, it was still in use by the Department of Railways and Canals because of the "important quarry" located on it.²⁶

It was appropriate that the site of the earliest canal on the St. Lawrence should prove valuable in the construction of the Soulanges Canal, a part of a scheme at the end of the 19th century to widen and deepen the St. Lawrence route to the interior. Where once a small canal at Coteau-du-Lac for bateaux and Durham boats had satisfied the demands placed on the river route, now a steamboat canal was required. It, too, would be replaced in the future by an even deeper and wider channel which would allow ocean-going vessels to penetrate far into the North American continent.

ENDNOTES

Early Approaches

- 1 "Journal de la Compagne que le Sr De Léry ... a faite au Détroit en l'année 1749.....," Rapport de l'Archiviste de la Province de Quebec, Vol. 7 (1926-27), p. 336.
- 2 "Journals of Major General Jeffery Amherst and Colonel William Amherst, 1758-60," Part 8, Amherst's Journal from 9 July 1760, to 26 August 1760; John Knox, An Historical Journal of the Campaigns in North America for the years 1757, 1758, 1759, and 1760. Ed. with intro. by Arthur G. Doughty (Toronto: The Champlain Society, 1914), Vol. 3, p. 92.
- 3 John Knox, op. cit., Vol. 2, pp. 556-7.
- 4 See, for example, George F. G. Stanley, Canada's Soldiers, the Military History of an Unmilitary People (Toronto: Macmillan, 1960), p. 101.

The Provision-Forwarding Post

- 1 Canada. Public Archives (hereafter cited as PAC), MG 11, CO42, Vol. 38, p. 132, Canada, Original Correspondence, Sketch of the Military State, 25 July 1778.
- 2 PAC, MG 21, G2, Vol. 188, p. 49, Lieutenant-General Sir Frederick Haldimand Papers, Haldimand to Carleton, 10 May 1779.
- 3 Ibid., Vol. 99, p. 12, Haldimand to Brehm, 8 April 1779.
- 4 Ibid., p. 15, Haldimand Papers, Observations que Monsieur le Capitaine Brehm aura soin de faire dans la route de la Chine au Détroit, 9 April 1779.

- 5 Ibid., p. 33, Brehm to Haldimand, 26 April 1779.
- 6 Ibid., p. 91, Brehm to Haldimand, 5 July 1779.
- 7 Ibid., p. 97, Haldimand to Brehm, 23 July 1779.
- 8 Ibid., p. 79, Brehm to Haldimand, 18 Aug. 1779.
- 9 Ibid., Vol. 80, p. 161, Haldimand to Leake, 26 Aug. 1779.
- 10 PAC, MG 11, Q Series, Vol. 16, pt. 2, pp. 641-2, Haldimand to Lord George Germain, 24 Oct. 1779.
- 11 PAC, MG 21, G2, Vol. 154, pp. 213-4, Haldimand to Twiss, 29 Nov. 1779.
- 12 Ibid., pp. 219-20, Twiss to Haldimand, 2 Dec. 1779.
- 13 Ibid.
- 14 Ibid., p. 223, Haldimand to Twiss, 6 Dec. 1779.
- 15 Ibid., Vol. 192, p. 61, Return, 17 Feb. 1780.
- 16 Ibid., Vol. 191, pp. 83-4, Day to Mathews, 7 Feb. 1780.
- 17 Ibid., p. 85, Mathews to Day, 10 Feb. 1780.
- 18 Ibid., p. 88, Day to Mathews, 14 Feb. 1780.
- 19 Ibid., pp. 92-3, 19 Feb. 1780.
- 20 Ibid., p. 101, 6 March 1780; *ibid.*, Vol. 192, p. 62, "Return of provisions lodged at Haldimand Point to be sent to the upper posts, 4 March 1780. Left by the batteaux last fall: 390 barrels of flour, 138 barrels of pork, 268 half barrels of pork, 70 barrels of pease. Sent from Montreal by sleighs: 614 barrels of flour, 1,125 half barrels of flour, 158 barrels of pease. Total: 1,004 barrels of flour, 138 barrels of pork, 1,393 half barrels of pork, 228 barrels of pease. Total: 2,066 barrels."

- 21 Ibid., Vol. 191, p. 106, Day to Mathews, 27 March 1780. The enclosed return noted that there were 270 $\frac{3}{4}$ bushels of Indian corn and $6\frac{1}{2}$ gallons of pumpkin seed at Coteau du Lac.
- 22 Ibid., pp. 108-9, Day to Mathews, 3 April 1780.
- 23 Ibid., p. 120, Day to Mathews, 17 April 1780.
- 24 Ibid., p. 122, Mathews to Day, 24 April 1780.

A Canal is Added

- 1 PAC, MG 21, G2, Vol. 80, p. 215, F. L. H. to Sir John Johnson, 16 March 1780.
- 2 Ibid., Vol. 81, pt. 2, p. 17, F. L. H. to MacLean, 29 March 1780.
- 3 Ibid., Vol. 154, p. 266, Twiss to Haldimand, 5 June 1780.
- 4 Ibid., Vol. 81, pt. 2, p. 26, F. L. H. to Capt. Leake, 8 June 1780.
- 5 PAC, MG 11, CO42, Vol. 40, p. 110, Haldimand to Germain, 25 Oct. 1780.
- 6 PAC, MG 21, G2, Vol. 154, p. 316, Twiss to Haldimand, 15 Feb. 1781.
- 7 Ibid., pp. 318-9, 19 Feb. 1781.
- 8 Ibid., p. 321, Mathews to Twiss, 22 Feb. 1781.
- 9 Ibid., Vol. 188, p. 66, Mathews to Maurer, 6 July 1780. For buildings erected at this time see structural report. Johan Jost Herkimer was a Loyalist from Tryon County in upper New York. Confined in various patriot jails between 1775 and 1777, he escaped in March, 1777, and made his way to Niagara where he was given the rank of Captain in the Indian Department. In the expedition against Fort Stanwix in 1777, he acted as overseer of batteaux. See W. D. Reid, "Johan Jost Herkimer, U. E. and his Family," Ontario Historical Society Papers and Records, Vol. 31 (1936), pp. 215-7.

- 10 PAC, MG 21, G2, Vol. 188, p. 68, Mathews to Maurer, 18 Sept. 1780.
- 11 Ibid., p. 72, Maurer to Mathews, 9 Oct. 1780.
- 12 Ibid., p. 78, Maurer to Mathews, 30 Oct. 1780.
- 13 Ibid., p. 84, Maurer to Mathews, 16 Nov. 1780.
- 14 Ibid., Vol. 188, p. 85, Mathews to Maurer, 22 Nov. 1780.
- 15 PAC, MG 11, Q Series, Vol. 17, pt. 2, pp. 733-4, Haldimand to Germain, 31 Oct. 1780.
- 16 PAC, MG 21, G2, Vol. 192, p. 118, State of the Transport of Provisions & stores to the Upper Posts in 1780.
- 17 Ibid., p. 117, "Return of Provisions and Stores, 24 Dec. 1780: 107,802 lbs. flour; 4,708 lbs. beef; 3,219 lbs. pork, 221 bus. pease; 1,000 lbs. butter; 10 bus. salt; 17 galls. vinegar."
- 18 Ibid., Vol. 188, p. 84, Maurer to Mathews, 16 Nov. 1780.
- 19 Ibid., Vol. 191, pp. 141-2, Day to Haldimand, 12 March 1781.
- 20 Ibid., Vol. 188, p. 100, Day to Mathews, 29 March 1781.
- 21 PAC, MG 21, G2, Vol. 191, p. 178, Maurer to Genevay, 30 April 1781.
- 22 Ibid., p. 178, Dennis to Day, 21 April 1781.
- 23 Ibid., Vol. 188, p. 103, Mathews to Maurer, 3 May 1781.
- 24 Ibid., Vol. 154, p. 316, Twiss to Haldimand, 15 Feb. 1781.
- 25 Ibid., Vol. 191, pp. 141-2, Day to Haldimand, 12 March 1781.
- 26 Ibid., Vol. 188, p. 103, Mathews to Maurer, 3 May 1781; Vol. 131, p. 106, Mathews to MacLean, 10 May 1781.
- 27 Ibid., Vol. 191, p. 168, Day to Dennis, 9 April 1781.
- 28 Ibid., p. 183, Day to Dennis, 23 April 1781.
- 29 Ibid., Vol. 154, p. 316, Twiss to Haldimand, 15 Feb. 1781.
- 30 Ibid., Vol. 131, p. 102, Mathews to MacLean, 19 Feb. 1781.

- 31 Ibid., Vol. 188, p. 103, Mathews to Maurer, 3 May 1781.
- 32 Ibid., pp. 106-7, Maurer to Mathews, 17 May 1781; Vol. 131, p. 106, Mathews to MacLean, 10 May 1781; Vol. 81, pt. 2, p. 168, Le Maistre to MacLean, 4 June 1781; Vol. 129, p. 214, De Speth to Haldimand, 28 June 1781.
- 33 Ibid., Vol. 131, p. 115, Haldimand to MacLean, 16 July 1781.
- 34 Ibid., Vol. 129, p. 265, Gray to De Speth, 20 Oct. 1781.
- 35 Zadock Steele, The Indian Captive or a Narrative of the Captivity and Sufferings of Zadock Steele (Montpelier, Vt.: E. P. Waton, 1818), p. 82ff.

Inter-War Period 1783-1812

- 1 PAC, MG 21, G2, Vol. 154, p. 454, Twiss to Haldimand, 22 Aug. 1783.
- 2 Ibid., Vol. 188, p. 234, Maurer to Mathews, 22 Sept. 1783; p. 236, Mathews to Maurer, 6 Oct. 1783.
- 3 W. D. Reid, op. cit., p. 217.
- 4 PAC, MG 21, G2, Vol. 63, p. 393, Mathews to Johnson, 10 June 1784.
- 5 Ibid., Vol. 188, p. 247, Maurer to Mathews, 19 April 1784.
- 6 Ibid., Vol. 63, p. 393, Mathews to Johnson, 10 June 1784.
- 7 PAC, MG 11, Q Series, Vol. 24, pt. 1, p. 272. Calculation of the quantity of grain ordered by General Haldimand to be provided for the Loyalists and forwarded to their settlements at the earliest opening of the navigation in spring as expressed in his letter to Colonel Hope as Quartermaster General, 15 November 1784.
- Wheat: 1,500 bushels at the rate of a bushel per man. Potatoes: 750 bushels at the rate of one-half bushel per man. Oats: 750 bushels at

the rate of one-half bushel per man. Indian corn: 281 bushels at the rate of 6 quarts per man. Herd's-Grass: $13\frac{1}{2}$ bushels at the rate of 1 quart per man. The above articles to be forwarded to Coteau du Lac in the winter.

- 8 PAC, MG 23, J9, Robert Mathews Diary, 17 Feb. 1787.
- 9 PAC, RG 8, Vol. 381, p. 67, British Military and Naval Records, I (hereafter cited as C Series), A general statement....., 1 Jan. 1791.
- 10 PAC, MG 11, Q Series, Vol. 57, pp. 1-2, A general view....., 29 Oct. 1792; also MG 12, War Office (hereafter cited as WO) 55, Vol. 1551 (Section 6), pp. 48-9.
- 11 PAC, MG 11, Q Series, Vol. 67, p. 194, Dorchester to Simcoe, 14 April 1794.
- 12 PAC, MG 21, G2, Vol. 64, p. 367, Haldimand to Hope, Nov. 1784.
- 13 Isaac Weld as quoted in Gerald M. Craig, ed., Early Travellers in the Canadas, 1791-1867 (Toronto: Macmillan, 1955), pp. 17-18.
- 14 PAC, RG 8, I, C Series, Vol. 38, pp. 1-3, Report of the state.
- 15 Donald C. MacDonald, "Honourable Richard Cartwright, 1759-1815," in Three Historical Theses (Toronto: Ontario Department of Public Records and Archives, 1961), p. 26.
- 16 A. Shortt, "General Economic History, 1763-1841," in A. Shortt and Arthur G. Doughty, eds., Canada and Its Provinces (Toronto: Edinburgh University Press, 1913), Vol. 4, pp. 556-7.
- 17 PAC, RG 5, B13, Section 11, Vol. 1, Report....

War of 1812-14

- 1 As quoted in J. MacKay Hitsman, The Incredible War of 1812 (Toronto: University of Toronto Press, 1965), p. 19.

- 2 J. MacKay Hitsman, op. cit., Prevost to Liverpool, 18 May 1812, Appendix: Despatches Respecting Defensive and Offensive Policy, pp. 246-7.
- 3 Ibid., p. 245.
- 4 J. MacKay Hitsman, op. cit., p. 83, Prevost to Brock, 27 July 1812.
- 5 J. MacKay Hitsman, op. cit., p. 54.
- 6 Ibid., p. 95 and passim.
- 7 PAC, RG 8, I, C Series, Vol. 1,168, pp. 294-5, General Order, 9 Oct. 1812.
- 8 Ibid., Vol. 1,220, p. 68, General Order, 19 Dec. 1812.
- 9 Ibid., Vol. 387, p. 5, Bruyères to Prevost, 14 Jan. 1813.
- 10 Ibid., Vol. 387, p. 51, Bruyères to Prevost, 14 April 1813.
- 11 For details regarding the construction of the fort, see Part 1 of the structural report.
- 12 PAC, RG 8, I, C Series, Vol. 678, p. 186, De Rottenburg to Prevost, 3 May 1813; also Vol. 1,170, p. 197, General Order, 7 May 1813.
- 13 Ibid., Vol. 678, p. 83, De Rottenburg to Adjutant General, 9 Feb. 1813.
- 14 Ibid., Vol. 1,170, p. 207ff, General Order, 19 May 1813, for an example of the complicated troop movements.
- 15 Ibid., pp. 185-6, General Order, 8 Oct. 1813.
- 16 PAC, MG 24, F15, Baynes to Scott, 18 Oct. 1813.
- 17 PAC, RG 8, I, C Series, Vol. 1,171, p. 79, General Order, 1 Nov. 1813.
- 18 Ibid., p. 81, General Order, 3 Nov. 1813.
- 19 Ibid., Vol. 1,694, p. 45, General Order, 4 Nov. 1813.
- 20 Ibid., Vol. 681, pp. 31-38, Scott to Prevost, 11 Nov. 1813.
- 21 Ibid.

- 22 Ibid.
- 23 Ibid., p. 41, Dennis to Scott, 11 Nov. 1813; also *ibid.*, p. 71, Bouchette to Freer, 12 Nov. 1813.
- 24 Ibid., Vol. 1,221, p. 235, Freer to Riall, 14 Nov. 1813; also p. 236, Prevost to Mulcaster, 14 Nov. 1813. Indians were also ordered there from Chateauguay, *ibid.*, Vol. 681, p. 106, Drummond to Baynes, 14 Nov. 1813.
- 25 Ibid., Vol. 1,219, p. 136, Prevost to Bathurst, 15 Nov. 1813.
- 26 Ibid., Vol. 681, p. 68, _____ to Baynes, 12 Nov. 1813.
- 27 Benson J. Lossing, The Pictorial Field-book of the War of 1812 (New York: Harper and Brothers, 1869) p. 655.
- 28 PAC, RG 8, I, C Series, Vol. 1,694, p. 48, General Order, 17 Nov. 1813.
- 29 Ibid., Vol. 681, p. 185, Drummond to Prevost, 30 Nov. 1813.
- 30 PAC, MG 24, F15, Beckwith to Scott, 27 Nov. 1813.
- 31 PAC, RG 8, I, C Series, Vol. 1,222, p. 59, Freer to Drummond, 4 March 1814.
- 32 Ibid., Vol. 1,219, pp. 194-6, Prevost to Bathurst, 12 March 1814.
- 33 Ibid., Vol. 732, p. 27, Yeo to Prevost, 8 Feb. 1814.
- 34 Ibid., Vol. 1,225, pt. 2, pp. 1-2, Prevost to Yeo, 7 Jan. 1814.
- 35 Ibid., pp. 15-16, Prevost to Yeo, 11 June 1814.
- 36 Ibid.

Post-War Period

- 1 James Flint, "Flint's Letters from America, 1818-20," Reuben Thwaites ed., Early Western Travels, 1748-1846 (Cleveland: A. H. Clark, 1904), Vol. 9, pp. 323-5.

- 2 PAC, RG 8, I, C Series, Vol. 408, p. 29, Romilly to Durnford, 18 Oct. 1820.
- 3 Ibid., Vol. 46, p. 99, Cole to Couper, 5 Nov. 1828.
- 4 Ibid., Vol. 39, p. 34, Clarke to Addison, 21 April 1818.
- 5 Ibid., Vol. 38, p. 151, Clarke to Robinson, 25 April 1816; Vol. 38, p. 167, Robinson to Hall, 3 July 1816.
- 6 For a discussion of the difficulties of transporting chinaware and pottery, see Elizabeth Collard, Nineteenth Century Pottery and Porcelain in Canada (Montreal: McGill University Press, 1967).
- 7 For a discussion of the trials of the immigrant, see Edwin Guillet, Early Life in Upper Canada (Toronto: Ontario Publishing Co., 1933), especially pp. 373-95, 415-45.
- 8 E. A. Talbot as quoted in N. P. Willis, Canadian Scenery (London: G. Virtue, 1842), Vol. 2, p. 46.
- 9 Ibid., pp. 44-5.
- 10 Donald G. Creighton, The Empire of the St. Lawrence (Toronto: Macmillan, 1956), esp. p. 193ff.
- 11 For a discussion of the effect of the Erie Canal see ibid., p. 206 and passim.
- 12 PAC, RG 8, I, C Series, Vol. 45, p. 247ff, Finlay to Darling, 12 July 1828.
- 13 Ibid., Vol. 47, pp. 223-5, Routh to Couper, 18 March 1829.
- 14 Ibid., Vol. 53, pp. 8-10, Piper to Durnford, 4 Aug. 1831.
- 15 Ibid., Vol. 53, pp. 18-21, Routh to Glegg, 29 Aug. 1831.
- 16 Ibid., Vol. 53, pp. 24-5, Estimate, 3 Dec. 1831.
- 17 Ibid., Vol. 55, p. 31, Goderich to Aylmer, 2 Aug. 1832.

- 18 Ibid., Vol. 56, p. 77ff, Routh to Stewart, 23 Feb. 1833.
- 19 For the construction of the Rideau Canal, see Robert Leggett, Rideau Waterway (Toronto: University of Toronto Press, 1955), especially chapters 3, 4, 5 and 6.
- 20 See G. M. Craig, Upper Canada; the Formative Years, 1781-1841 (Toronto: McClelland and Stewart, 1963), p. 153; and J. M. S. Careless, Union of the Canadas; the Growth of Canadian Institutions (Toronto: McClelland and Stewart, 1967).
- 21 Son of William Merritt as quoted in G. M. Craig, op. cit., p. 158.
- 22 See, for example, Thomas Fowler, The Journal of a Tour through British America to the Falls of Niagara.... (Aberdeen: L. Smith, 1832), pp. 131-3; and journey of Patrick Shirreff as quoted in Edwin Guillet, op. cit., p. 478.
- 23 PAC, RG 8, II, Ordnance Records, Vol. 6, p. 35ff, Copy of a Report to His Grace the Duke of Wellington ... Relative to His Majesty's North American Provinces, 1825.
- 24 PAC, RG 8, I, Vol. 244, p. 94, Nicoll to Pritchard, 13 Jan. 1831.
- 25 Ibid., Vol. 586, p. 78, Byham to Respective Officers, 1 May 1835.
- 26 Ibid., Vol. 586, p. 79, Storekeeper to Airey, 14 July 1835.

The Rebellion: A Military Interlude

- 1 PAC, RG 8, I, C Series, Vol. 1,271, p. 46, _____ to Cox, 2 Dec. 1837.
- 2 Ibid., Vol. 147, pp. 103-4, _____ to Goldie, 1 Dec. 1837.
- 3 Ibid., Vol. 147, pp. 105-6, _____ to Goldie, 1 Dec. 1837.
- 4 The Quebec Mercury, 2 December 1837.
- 5 PAC, RG 8, I, C Series, Vol. 1,271, pp. 58-9, Dickson to Simpson, 2 Dec. 1837.

- 6 Ibid., Vol. 1,271, pp. 54-5, Goldie to Simpson, 5 Dec. 1837.
- 7 Ibid., Vol. 1,271, pp. 67-8, Goldie to Vankoughnet, 6 Dec. 1837.
- 8 Ibid., Vol. 1,271, p. 93, Goldie to Phillpots, 19 Dec. 1837.
- 9 PAC, MG 12, WO 55, Vol. 1,897, Quarterly Return of Barracks.
- 10 PAC, RG 8, I, C Series, Vol. 608, pp. 20-2, George Bell to Seton, 5 Jan. 1838.
- 11 George Bell, Rough Notes By an Old Soldier During Fifty Years' Service (London: Day and Son, 1867), Vol. 2, p. 57.
- 12 Ibid., pp. 57-8.
- 13 PAC, RG 8, I, C Series, Vol. 445, p. 34, Foster to Goldie, 23 Jan. 1838; MG 12, WO 55, Vol. 1,917, p. 563, Goldie to Foster, 30 Jan. 1838. Structural detail may be found in the structural section of this report.
- 14 George Bell, op. cit., p. 58.
- 15 Ibid.
- 16 Ibid., pp. 58-9.
- 17 PAC, RG 8, I, C Series, Vol. 1,271, p. 157, Goldie to Empey, 30 Jan. 1838; Vol. 612, p. 392, Eden to Rowan, Return of Officers, 1 April to 30 June 1838; Vol. 588, p. 153, Carmichael to Rowan, 28 Aug. 1838.
- 18 Letter 368, Colborne to Arthur. Charles R. Sanderson, ed., The Arthur Papers (Toronto: University of Toronto Press, 1957), Vol. 1, pp. 310-312.
- 19 George F. G. Stanley, Canada's Soldiers (Toronto: Macmillan, 1960), pp. 197-8.
- 20 Charles R. Sanderson, op. cit., pp. 303-5, letter no. 357, Arthur to Colborne, 14 Oct. 1838.

- 21 Charles R. Sanderson, ed., op. cit., pp. 310-12, letter no. 368, Colborne to Arthur, 21 Oct. 1838; PAC, RG 8, I, C Series, Vol. 612, p. 41, Turner to Halkett, 3 Nov. 1838. The Captain Fraser was very likely Simon Fraser, the former Nor'wester.
- 22 Charles R. Sanderson, op. cit., p. 329, Griffin to Carmichael, 27 Oct. 1838.
- 23 PAC, RG 8, I, C Series, Vol. 613, pp. 321-3, Carmichael to Goldie, 20 Nov. 1838.
- 24 Ibid., Vol. 613, p. 223, Carmichael to _____, 17 Dec. 1838.
- 25 Charles R. Sanderson, op. cit., Vol. 2, pt. 3, pp. 126-30, letter 750, enclosure in Foster to Arthur, 24 April 1839; ibid., pp. 171-3, letter 806, Colborne to Arthur, 17 June 1839.
- 26 Ibid., pp. 171-3, letter 806, Colborne to Arthur, 17 June 1839; ibid., pt. 4, pp. 280-1, letter 942, General Order, 12 Oct. 1839.
- 27 Ibid., pt. 4, p. 442, letter 1201, Jackson to Arthur, 28 Feb. 1840; ibid., pp. 452-4, letter 1217, Arthur to Jackson, 7 Mar. 1840; ibid., p. 474, letter 1241, Arthur to Jackson, 28 Mar. 1840.
- 28 Ibid., pt. 3, pp. 135-42, letter 756, Confidential: Alphabetical Arrangement of Districts--Political State of Inhabitants, ca. May, 1839.

Replacement and Decline

- 1 PAC, MG 12, WO 55, Vol. 880, p. 381, Report upon the existing canal navigation...., n.d.
- 2 PAC, RG 8, I, C Series, Vol. 61, pp. 56-65, Minute, Ordnance Office, 6 March 1846.

- 3 Ibid., Vol. 522, p. 256, Mansell to H. M. Ordnance, 16 Dec. 1846; and return, Vol. 460, p. 244, 27 Oct. 1848, and Statement of the forces..., Vol. 524, p. 93, 26 July 1850.
- 4 Ibid., Vol. 61, p. 228, Minute of Board of Ordnance, 10 Jan. 1851.
- 5 Ibid., Vol. 464, p. 176, Alexander Waddell to Respective Officers, 22 Sept. 1851; and return, Vol. 31, p. 297, 1 Oct. 1853.
- 6 Ibid., Vol. 525, p. 259, Scott to Wright, 9 Sept. 1854.
- 7 The reserve at Coteau du Lac was transferred to the Province of Canada under Act 19 Victoria, Chapter 45, Statutes of 1856.
- 8 Dominion Lands Office (hereafter cited as DLO) Correspondence File 740-31-3, Vol. 1, Waddell to Coffin, 10 Jan. 1857.
- 9 DLO, Correspondence File 740-31-3, Vol. 1, Coffin to Provincial Secretary, 26 March 1857.
- 10 Ibid., Memorandum, 13 Dec. 1860.
- 11 Ibid., Report of G. F. Baillargé, 28 Sept. 1857.
- 12 Ibid., Waddell to Coffin, 13 May 1858.
- 13 Ibid., Coffin to Provincial Secretary, 25 Sept. 1858.
- 14 Ibid., Dixon to Coffin, 13 May 1865.
- 15 Ibid., Memorandum, 9 May 1866.
- 16 Ibid.
- 17 Ibid., Coffin to Assistant Commissioner of Crown Lands, 1 Oct. 1863.
- 18 Ibid., Coffin to Parent, 10 Feb. 1868.
- 19 Ibid., Memorandum, 5 April 1872.
- 20 Ibid., Report, 16 Dec. 1880.
- 21 Ibid., passim.
- 22 Ibid., Bain to Dewdney, 28 Feb. 1889.

- 23 Ibid., Deputy Minister to Bain, 15 March 1889.
- 24 Ibid., 10 May 1889.
- 25 Ibid., Bradley to Hale, 28 April 1891.
- 26 Ibid., Secretary Department of Railways and Canals to Deputy Minister of the Interior, 23 March 1906.

The Fort at Coteau-du-Lac
Structures and Other Features
by George C. Ingram and William J. Folan

The Fort at Coteau-du-Lac:
Structures and Other Features
by George C. Ingram and William J. Folan

106	Preface
109	Introduction
112	Archaeological Training
113	Consolidation
115	A Brief Structural History
116	The War of 1812
120	The Rebellion
122	Decline
124	The Canal
124	Structural History
132	Excavation Techniques
134	Structural Details
136	Features
138	Centre Gate
139	The North Lock Gate
141	Overflow Tunnel
143	The Octagonal Blockhouse
143	Structural History
145	Structural Information
149	Commanding Officer's Quarters
149	Structural History
151	Structural Details
156	The Cellar
156	Storehouses
156	The Storehouse/Temporary Officers' Quarters and Storehouse/Gunshed
157	Storehouse/Temporary Officers' Quarters
157	Structural History
159	Structural Details

162	Storehouse/Gunshed
162	Structural History
163	Structural Details
164	The North and South Blockhouses
164	The North Blockhouse
164	Structural History
165	Structural Details
167	The South Blockhouse
167	Structural History
168	Structural Details
170	The Hospital
170	History
171	Structural Details
171	The Cellar
174	The Cloverleaf Bastion
174	Gun Platforms and Flagpole Base
176	Prehistoric Remains
179	Hospital/Master Carpenter's Quarters
179	Structural Details
181	Barracks, Carpenter's Shop and Stable
182	Structural Details
183	The Powder Magazine
183	Structural History
185	Structural Details
186	The Stone Barracks
186	Structural History
190	Structural Details
193	Commissariat Officer's Quarters/Church
193	Structural History
197	Structural Details
200	The Bridge
200	Structural History
202	Structural Details
203	Guardhouse
203	Structural History
204	Structural Details

- 206 Bake House and Cooking House
- 206 Structural History
- 207 Structural Details
- 209 The Cooking House
- 209 Structural History
- 210 Structural Details
- 211 Barracks Store
- 211 Structural History
- 212 Structural Details
- 213 Gun Platforms
- 215 Structural Details
- 218 Engineer's Quarters and Barrack Master's Quarters
- 218 Engineer's Quarters
- 218 Structural History
- 219 Structural Detail
- 219 Barrack Master's Quarters
- 219 Structural History
- 220 Structural Details
- 221 Ox Stable/Commissariat Barn, Storehouse and Stables
- 221 Ox Stable/Commissariat Barn
- 222 Commissariat Storehouse and Stables
- 222 Structural History
- 222 Structural Details
- 223 The Sawmill
- 223 Structural History
- 225 Structural Details
- 227 Prisoner's Island
- 227 Structural History
- 232 Structural Details
- 232 Palisaded Enclosure
- 233 Workshop
- 233 Blockhouse
- 233 Guardhouse
- 233 Commanding Officer's Quarters
- 233 Barracks

- 235 Miscellaneous Structures
- 235 Engineer Smith Shop
- 235 Temporary Sheds
- 236 The Entrance
- 237 Temporary Guardhouse
- 237 Maypole
- 238 Earthworks
- 239 Structural Details
- 239 Garden
- 240 Walkways
- 241 Service Buildings of the Commanding Officer's Quarters
- 242 Structural Details
- 242 Temporary Shed/Artificers' Barracks
- 243 Temporary Shed/Artillery Store
- 243 Temporary Backhouse and Canteen
- 244 Unidentified Building
- 244 Privy
- 244 Shed
- 244 Private Store/Slaughterhouse
- 245 Officer's Necessary
- 245 Rough Frame of a House
- 245 Boat-Building Complex
- 245 Boat Shed
- 246 Boat-Builder's Quarters
- 246 Boiler
- 246 Private House

Preface

The history of Coteau-du-Lac is significant in two respects. From 1778 to the mid-19th century, it was the site of a British military post which defended the passage and implemented the transportation of supplies along the St. Lawrence River. In addition, one of the earliest multi-level canals in North America was constructed at Coteau in 1779-80, a canal which was in continual use until it was replaced in the 1840s. The historical significance of Coteau-du-Lac was recognised in 1923 when the Historic Sites and Monuments Board of Canada declared the site of national historic importance and erected a commemorative plaque. Extensive development did not begin until 1965, however, when historical and archaeological studies of the fort and canal were undertaken as the first stage in the development of the site by the National Historic Sites Service of the National and Historic Parks Branch, Department of Indian and Northern Affairs. The following report is a produce of part of this research, consisting of a history of the site and a description and analysis of the architecture derived from documents and archaeological investigations. In its preparation, Mr. George C. Ingram was responsible for the historical, and Mr. William J. Folan for the archaeological research. Mr. A.E. Wilson reported on a resistivity survey of part of the site.

Tons of cultural material were recovered during excavation at Coteau-du-Lac, but unfortunately all the artifact analyses have not been completed in time to be included in this publication. Among the cultural material recovered are more than 80,000 sherds representing 10,000 ceramic objects. These are being studied by J.-P. Cloutier, ceramics analyst for the service, who has been associated with the Coteau-du-Lac project since the summer of 1965. Over three tons of metal artifacts from the site are being analysed by Peter Priess; the bulk of the material consists of building hardware, tools, fragments of machinery, pots and pans, and military objects such as gun parts and cannon balls. Several hundred buttons are being studied by DiAnn Herst, who is also classifying the military badges. Upwards of 50 coins and tokens from the fort have been analysed by Anne Cunningham. Elizabeth Wylie and Alison McLean studied and reported on the 11,416 clay pipe fragments from the fort. Numerous glass fragments recovered from the canal and other fort structures have provided glass analyst Olive Jones with many examples of wine and medicine bottles, glass containers for toiletries and stemware used by the inhabitants of the fort. In addition to the artifact analysis described above, the social aspects of life at the fort are being studied by Karen Price, who is using diaries and barranks, medical and garrison reports. The indigenous artifacts from Cotea, especially from the cloverleaf bastion, dating from before the time of Christ to the early historical period, have provided Richard Lueger with sufficient material to infer not only the length of time of occupation but also various activities which took place on or about the site

before it was occupied by the British. An analysis of human skeletal material from the cloverleaf bastion has been completed by J. Edson Way of the University of Toronto. The mammal and bird bones recovered from the same place have been identified and analysed by Dr. Howard Savage of the Royal Ontario Museum with the help of Jim Burns. Dr. W.B. Scott, also of that museum, is responsible for reporting on the fish remains.

The present report is primarily concerned, as noted earlier, with the history of the site and its architecture, and, as such, illustrates some of the difficulties associated with development-oriented rather than problem-oriented research. This orientation is determined by an attempt to provide the basic data for the interpretation of an historic site and its presentation to the public. The structures and other masonry features excavated at Coteau were consolidated and preserved as found, and interpretive devices were used to provide explanations. In addition, a facsimile of the octagonal blockhouse was erected beside the stabilized foundations of the original structure to house an interpretation centre.

When all the artifacts have been analysed, a final report will be prepared including an analysis of the artifacts in terms of their use and context. Only then can a final statement about Coteau-du-Lac be undertaken.

Introduction

The following discussion of the physical features of the fort at Coteau-du-Lac combines material from historical research and nearly 30 field reports describing the excavations at the site in 1965, 1966 and 1968. It is followed by a series of architectural photographs and scale drawings. Where available plans of the structures drawn up in 1823 by Lieutenant Colonel E.W. Durnford, RE, are also included. For greater clarity, few symbols are used to differentiate the various attributes associated with a building. In general, the drawings are self-explanatory. Dimensions have been kept to a minimum because they are readily available from the scale drawings.

The field research for this report was begun in July 1965. Although the location of some structures was evident from ground depressions or differences in grass colour, building positions were determined mainly from maps contemporary with the occupation of the fort. Before excavation, the area around a building was delimited with a liberal margin. This area was de-sodded with sharpened shovels to ease excavation and to uncover any architectural features directly under the sod. Parts of the structure thus exposed were recorded photographically, and then all the architectural features were excavated with the usual tools. A narrow-gauge railway, a dump truck and a payloader were, however, used to remove material excavated from the canal, and a backhoe was successfully employed to excavate an area below the water table at the north end of

the canal. The artifacts recovered were stratigraphically recorded, masonry was cleaned and photographed, and ground plans and sections were drawn stone by stone.

Around the fort are large, easily-worked, open quarry sites of fractured limestone along the banks of both the St. Lawrence and Delisle rivers. Moreover, glacially (and perhaps alluvially) deposited stones were commonly found in the ground. Fortunately for the builders of the fort, stone from both sources required little or no work to square and face sufficiently to build a well-coursed wall. When wall and, in a few cases, foundation/cellar stones are described as roughly squared and faces, the builders are given the benefit of the doubt: they did at least do something to square the stones roughly and to provide them with smoother faces. The major exceptions to the are the obviously well-squared and faced stones found at the northern and southern ends of the canal, a few of the stones associated with the north wing of the commandant's quarters and some corner stones, especially those in the cellar of the octagonal blockhouse. Nonetheless, stones used in the foundations of some buildings, such as the large barracks and the commissariat officer's quarters/church were fragments of rock which were completely unworked, or at most broken with a sledge into manageable sizes. The same is true of the stones used to form the many walks found in the fort. These walks are built of broken rock which was dry laid, usually between roughly-shaped border stones.

The masons who built the fort followed rather simple procedures. After quarried stones were brought to the work area, the bottom course of stone was set in place on top of a liberal quantity of lime or mud

mortar troweled onto the clay or bedrock surface below it. If this surface was a lower section of wall, the higher stones would be put completely straddling the vertical joint between the two stones underneath. The stone was forced into position and the excess mortar squeezed out was either returned to the mortar board or re-used to fill joints. The next step was to plumb the stone roughly and hammer in horizontally-placed spalls to level it and vertical spalls to provide a better bond between stones. The mason rechecked to make sure that the stone was plumb. A dry wall was laid in a similar fashion, but without the use of mortar.

During the first season of work at the fort (July-October 1965) the following students took part in the project and submitted detailed reports of their individual work: Carmen Lambert (commissariat officer's quarters/church, barracks/carpenter's shop/stable), Roger Marois (octagonal blockhouse, north blockhouse) and Michele Wilson (cannon ramp, earthworks section, canteen), all then of the University of Montréal; John Dewhirst (commanding officer's quarters, hospital), then of the University of British Columbia, who also contributed significantly to the photographic record; Winnie Villeneuve (storehouse/temporary officers' quarters, hospital/master carpenter's quarters), then of the University of Alberta; and Paul Villeneuve (powder magazine), then of Laval University. Henry Sauerbraun (stone barracks, storehouse/gunshed, south blockhouse), then of Southern Illinois University, was the field assistant, and Albert Wilson was the project surveyor. Jean-Pierre Cloutier, Michel Lapierre, Hans Van De Wefhorst and Michel Lazure were responsible for most of the graphic record. Maria A. Folan supervised

the excavation of the western bridge abutment and finished the excavation of the commissariat officer's quarters/church when Carmen Lambert left to resume her studies at the University of Montréal.

The following students took part in the project in the second season (April-September 1966) and submitted detailed reports of their work: Carmen Lambert and Michele Wilson (guardhouse, cookhouse, barrack master's quarters, officers' servants' quarters), then of the University of Montréal; Winnie Villeneuve (bakehouse) of the University of Alberta; and Paul Villeneuve (barracks stores) of Laval University, whose geographical analysis of the site contributed toward a better understanding of the fort. Walter Zacharchuk supervised the excavation of the canal, and Hans Van de Werfhorst the survey of Prisoners' Island. Rogén Marois (the cloverleaf bastions, gun platforms in the fort) was the field assistant, and A.E. Wilson the project supervisor. Jean-Pierre Cloutier is responsible for most of the architectural scale drawings, assisted by Michel Lapierre, and Robert Irwin supplied most of the photographic record.

During the early summer of 1968 Richard Lueger spent two weeks in the field excavating the three gun platforms associated with the cloverleaf bastion and the indigenous artifacts and human skeletal material found below these features. Mr. Lueger also excavated the entrance to the fort during the same period.

Archaeological Training

A successful field, laboratory and research program is possible only with well-trained and -oriented personnel who have not only mastered

the techniques of excavation, recording and conservation but can also describe and evaluate their findings. To this end the National Historic Sites Service operated an archaeological field school at Fort Lennox, Quebec, during the summers of 1964 and 1965 to train interested students in basic archaeological principles. After completing preliminary classroom and excavation orientation at Fort Lennox in 1965, several students were sent to Coteau-du-Lac for on-the-job training in a large-scale field excavation.

In 1965 and 1966 each student nominally supervised 6 to 12 workers in the excavation of one or more structures and was the sole recorder of the material recovered during excavation. The major exceptions were the recording of those features plotted by transit; that is, most of the scale drawings of the exposed masonry and cross sections. Mr. Wilson, a professional surveyor, was responsible for all work done with the transit.

All students who worked at Coteau-du-Lac received a complete set of drawings and photographs of the structure(s) for which they were responsible so that these could be included in their final field reports. The students were also given a short history of the fort, Durnford's architectural drawings and a model format for the reports.

Consolidation

Toward the end of the 1965 season, several stonemasons were hired and trained in the basics of masonry consolidation at the fort. The technique employed is both simple and efficient. After a wall is excavated and cleaned, it is photographed a section at a time with a Polaroid

camera placed equidistant from the wall for each photograph. After the prints are developed and fixed, their end margins are removed and the prints are glued together to form a composite photograph of the wall. Each stone on this photograph mosaic is numbered up to 99 and the number of the stone is pencilled on the upper right-hand corner of the corresponding stone in the wall. The number is always written in the same spot on each stone. The wall to be consolidated is measured for its maximum horizontal and vertical limits, and the presence or absence of a batter is noted. When all details have been recorded, the wall is dismantled stone by stone. All of the stones are placed in an area in front of their provenance in the wall; the stones highest in the wall are placed farthest from its base and the lowest stones are put nearest the base. To reassemble the wall, the Polaroid prints are consulted and each stone, with associated spalls, is reset in its original position. The colour of the cement mortar used in consolidation is "antiqued" by rubbing earth into the still-wet mortar.

The technique described above is more desirable than the practice of painting large numbers on the wall stones before photographing them. This disfigures the stones and diminishes the aesthetic value of the consolidated wall.

A Brief Structural History

In the summer of 1779 the British authorities decided to establish a provision-forwarding post at Coteau-du-Lac to implement the transfer of supplies from the depot at Montréal to the forts and posts of the interior. Construction began almost immediately. By December, a storehouse "capable to contain 3,000 barrels of provisions" had been completed, as well as two "small blockhouses." The post was well-picketed on one side and covered on the other by an abattis,¹ and was secure against a "musquetry" attack. In the following year, construction of a canal for the improvement of transportation along the St. Lawrence began.

A company of batteau men was formed to convey goods stored at Coteau-du-Lac to the transfer point on Carleton Island. These men were joined by a detachment of Royal Yorkers, stationed at Coteau to defend the post. Many of these men (all of them loyalists) brought their wives and children with them to the post. French Canadians brought the sleigh-loads of provisions as far as Coteau-du-Lac in the winter. The existing accommodations were inadequate, and, by the fall of 1782, steps had been taken to satisfy the needs of the occupants. A home "to lodge the Canadians or Corvée" was finished and a "stable for their horses, 150 feet long" wanted only "boards to cover it." With these additions, it was believed that "every cause of complaint from the Canadians who

transport the provisions in the winter will be effectively removed."² The existing barracks provided insufficient accommodation for the garrison and its entourage, so Lieutenant Maurer and Captain Twiss marked out a place in the woods (upwards of 500 yards from the fort" where the married men could erect temporary huts for themselves and their families.

After the American Revolution, most of the buildings were not kept in repair. In 1787 a passing traveller noted that "the storehouses appear to be in good condition, but the blockhouses, barracks and stockade are going fast to ruin."³ Again, in an official report of 1791, the buildings were said to be in poor condition, but the inspecting engineer recommended that not all of them be repaired, "for some of the buildings have not been used for several years and are in exceeding bad condition."⁴ While most of the buildings were allowed to fall into disrepair, the canal, in constant use, was kept in working order. Repairs were made almost annually, and, in 1801-04, it underwent a thorough reconstruction.

The War of 1812

At the beginning of the War of 1812 it became obvious that Coteau-du-Lac was destined to play an important role in the defence of the St. Lawrence and the border region. Its garrison was immediately increased in size. An extensive expansion was planned to accommodate the troops and improve the defences of the post. Lieutenant Colonel R.H. Bruyeres, RE, visited the site early in 1813 and offered the following recommendations:

Coteau du Lac, nine miles above the village of the Cedars is a most essential and important position which effectively commands the passage of the rapids at this point. This post should be strengthened and occupied as soon as possible. I recommend to construct a Block House on the Point to contain 200 men. Also to enclose and entrench the position; to be armed with two 12 pounders and 2 brass 6 pdrs to serve as movable guns, to take post on some very commanding and projecting points between the Post and the Cascades. It will be further necessary to occupy the upper end of Prison Island immediately opposite the Coteau with a Block House to contain 40 men and a small Battery in front for two 12 pdrs to command the Channel. The present Block Houses and Buildings on this point are totally decayed and unserviceable.⁵

The actual construction followed closely what Bruyeres had suggested; if anything, it was even more extensive, as far as Coteau-du-Lac, because the bisection of the fort by the canal posed problems of defence. In effect, two separate areas had to be defended.

On the point, a cloverleaf bastion was formed to mount three 24-pounder guns. From its north end, a palisade, making a flanking turn, ran to the new bakehouse adjacent to the canal. On the south side of the point, an earthwork continued from the bastion to the canal, where it ended in another 24-pounder gun position. Along the top of the canal a retaining wall kept the earthwork or embankment in place. The whole point was given an escarp of stone and fraised.

Field investigation located the base of the dry-laid escarp, built of large, roughly-faced stones. In front of the footing and running completely around the point was a ridge of crudely broken rock forming a small ditch. Historic plans show water flowing through this channel. The area between the outer ring of rock and the escarp had been deepened by the removal of bedrock, indicating that it had formed an earlier safe channel. The Sieur de Léry, passing Coteau-du-Lac during the French regime, had suggested that navigation could be made easier by making "une chaîne de roches au large du Coteau...à dix pieds de l'escarpement." By 1749 some attempts had been made to improve "ce chemin" but it was still incomplete and unusable.⁶ Later, in the English period, when the main canal was closed for repairs, boats were hauled through this channel. In 1830, for example, the builder charged the government for "clearing the outer channel and other preparations for the passage of boats during the progress of the works" and for preparing "2 new crab purchases for the purpose of hauling the Durham boats &c. round the point during the progress of fixing a new pair of gates."⁷

During the construction there were several "temporary" buildings located on the point. These may have been erected in 1813 to house the workshops, workmen and garrison until the new fort was completed, or they may have been buildings from the revolutionary period left standing for a short time to provide accommodation. Two buildings by the canal -- the hospital and hospital/master carpenter's quarters -- may have been structures dating from the American Revolution, repaired to serve in the new fort. Two strengthen the defences and increase the barrack accommodation, the octagonal blockhouse was built, and, near the

north end of the canal, the bakehouse was erected. The latter may have been set near the canal so that flour could be transported there more easily.

On the mainland side of the canal, extensive fortifications were formed. A ditch was excavated (sometimes into bedrock) to a depth which allowed water from the river to enter it at both ends. The excavated material went to form a glacis and earthworks. In the finished fort a new entrance with wooden retaining walls on either side was cut through the redan. Guns mounted en barbette were put at each angle of the fort, and a series of gun platforms along the landward side were designed to mount guns which fired through embrasures. The escarp and counterscarp of the ditch may well have been lined with masonry, and, in 1815, the escarp is shown fraised.

At the north and south ends of the canal were the two blockhouses, probably put up during the American Revolution. (The one at the north end may have been reconstructed at this time, for the foundations were oriented in two different directions during its history.) Both blockhouses sat on platforms retained by masonry walls. Alongside the canal were two storehouses which also appear to have dated from the revolution. These were probably repaired extensively and provided with the amenities to fit them out as barracks. The most important of the structures built at this time was the stone barracks, which provided the main accommodation for the garrison. At its south end was the cookhouse. In the northwest corner of the fort stood the powder magazine and, south of it, the guardhouse.

Outside the fort a number of service buildings were erected. Along the Delisle River, in an area now under water, was the blacksmith's shop. Northwest of it stood the commissariat barn, with stables at either end. (This site has been disturbed by road construction and was therefore not excavated.) Farther up the river was a barn and a fenced yard for oxen. The engineer's quarters was also located here. Immediately across the road from the fort was the commandant's quarters, which was probably erected at this time, although it may have dated from an earlier period. (The present position of the road is west of the commandant's quarters.) Around this building were a number of service structures. To the south was the barrackmaster's quarters. Nearby was the boat-building complex, consisting of the boat-building sheds and the builder's quarters, which may have dated from the Revolutionary War.

Between the War of 1812 and the Rebellion of 1837-38, little building was carried out at the fort. The commissariat officer's quarters was erected immediately after the war, and in 1827-28 a new gunshed was constructed inside the fort. The earthworks were probably not kept up and, due to the severity of the Canadian winter, very likely soon lost their sharp contours. The canal, however, was maintained annually, with frequent and extensive repairs.

The Rebellion

By the time of the Rebellion of 1837, the defences were in poor condition. When Captain George Bell arrived early in January 1838, he

reported that the fort was in "a most defenceless state" and that Captain "S." was making "arrangement for such repairs" as would be useful.⁸ Most of the suggested repairs were of a temporary nature, designed to provide immediate defences for the fort.

In order to carry the General's wishes into effect and to put the Fort into a temporary state of defence it is proposed to form a Banquette & to cut a Berme round the Fort for the purpose of fixing Fraises upon. Palisades to be fixed across the Ditch at the salient angle to the S. West from whence to extend abattis along the ice to the Rapids, behind which it is necessary to form a Blockade (loopholed) to prevent a surprise in the rear on that side. A more extended line of abattis is required to the North East side of the Fort, together with palisading and loopholed blockades, a New gate is indispensable and it is desirable that a part of the bridge should draw up against it, the gate posts must be renewed in the Spring when the Fraises and Palisades will require to be refixed, they cannot be effectually done at this season. The sides of the gateway require to be planked and reformed.⁹

Approval for the recommended repairs was given on 30 January 1838.¹⁰

Bell also retrieved a number of cannon and shot from the river where they had been thrown by the volunteers to prevent their falling into enemy hands. He mounted the first two guns on platforms which he had had made from the "strongest materials." During the winter, Bell recovered more guns, which he also mounted on platforms built of

local materials: "I recovered twelve more twenty-four pounders in the middle of winter, erected a sawpit in the forest, cut down my timber, finished more platforms, erected four batteries and a drawbridge, and made myself secure against any enemy."¹¹

After the rebellion, there was little more construction. The garrison soon diminished to caretaker size and in 1845 the canal was replaced by the Beauharnois Canal.

Decline

In 1856, when the British authorities turned the site over to the united province of Canada, the Crown Lands Branch immediately began to search for ways in which it could obtain a return from the land. In 1857, G.F. Baillargé, an engineer, was sent to determine the number of potential mill sites at the post. He returned with the recommendation that mills be set up on the ditch, the canal and the point. Only one mill was ever constructed, however; in 1867 Georges Beaudet leased the fort and built a sawmill using the canal as a race. Other buildings he rented to his workers.

By this time, however, most of the buildings were in disrepair. This was especially true after 1870, when the commissariat officer's quarters and the commandant's quarters were destroyed by fire. In 1872 the buildings dating back to the old fort were sold at auction for the materials they contained. Beaudet's mill continued to stand until the 1890s, when it is shown on a plan of the site.

In the 1890s the site was handed over to the Department of Railways and Canals, which was involved in the construction of the Soulanges Canal,

and which wanted the old fort as a source of building materials. Stone had been quarried there before, probably for the construction of the fort and later projects. During Beaudet's tenure, a claimant to the land occupied by the fort quarried (without permission) a great quantity of stone, which he was not allowed to remove. This stone stayed on the site unclaimed and unused until the nuns who were building a convent-hospital in the town asked for and probably received it. This repeated quarrying caused the Deslisle River to inundate the area north of the fort. The St. Lawrence shore was another source of stone. When the Coteau canal was in the hands of the Department of Railways and Canals, the stone from it may also have been hauled away for the construction of the Soulanges Canal, since much cut stone was use there.

After 1900 the site stood vacant. It is not known when Beaudet's mill was removed, but it may have been dismantled and hauled away when his lease expired in the 1890s. Only the earthworks survived to bear witness that a once bustling establishment had stood at Coteau on the banks of the St. Lawrence.

The Canal

In 1779-80, Governor Frederick Haldimand ordered the construction of a storehouse at Coteau-du-Lac to improve the supply line to the interior. In the same year, William Twiss, the chief engineer in Canada, recommended the construction of a canal as a further improvement. Most of this was completed by the fall of 1780.

For the next 60 years this canal, with others on the St. Lawrence, facilitated transportation through the treacherous stretch of rapids between Lake St. Joseph and Lake St. Francis. To improve circulation of the increasing traffic on the St. Lawrence, the Coteau Canal was enlarged and improved repeatedly.

Structural History

The cutting of a canal across the peninsula at the Coteau began in 1780. By June, Twiss reported to Haldimand that everything was "pushing forward with great industry."¹ With the addition of workers from Sir John Johnson's corps, he hoped to be able to "complete the locks for passing bateaux by the end of September." The original intention was to build "the sides of timber," but later it was decided "to build with masonry."

The canal was constructed expedite the transport of goods up and down the St. Lawrence by making the river more navigable for batteaux.

Throughout the Revolutionary War, the ~~small~~ cargo boats carried goods between Montreal and the depot at Carleton Island through the locks of the Coteau Canal.

Following the revolution, the traffic through the locks increased considerably as civilian craft used the St. Lawrence to reach the growing settlements of the interior. The locks were kept in good condition and received periodic pointing and general repairs.² By 1800, however, it became obvious that they were inadequate both in condition and size for the traffic. Gother Mann, RE, was sent to inspect the various canals on the river, and suggested an extensive overhaul of the existing system. All of the locks were in bad condition and were too narrow to accommodate the increasing size of the craft using the St. Lawrence. For the canal at Coteau he proposed:

besides a thorough repair, to enlarge the opening of the Gates to nine feet six inches; to give an additional breadth of two feet to the Canal and four feet to the Locks; and to deepen the whole one foot six inches. With these alterations the largest sized Bateaux may be passed fully loaded with facility, even when the River is low, and an allowance made for Boats which may hereafter be built of larger dimensions.³

Mann's suggestions were at least partly adopted, for a considerable amount of money was voted for work on the canal in 1800. George Landmann, another engineer, supervised the repairs, but little is known about the actual work undertaken. Because the canal was both widened and deepened at a later date, most traces of the first canal were probably removed by the subsequent construction.

The canal of 1800-03 served almost to the end of the War of 1812. Then, in 1814, work began to enlarge the locks and general to improve the canal. During the next few years first the Royal Engineers and then the Royal Staff Corps made the locks passable for barges (perhaps Durham boats). Numerous alterations were made, including a change in the position of the lock gates:

A considerable expense has been incurred for repairing the locks at the Cedars and at Coteau-du-Lac and for widening them for the passage of boats of a larger size than bateaux (those larger boats called barges owned by persons for the United States having hitherto since the lock at Coteau-du-Lac was finished passed through it at a rate double of what is paid for bateaux)....⁴

In the years that followed, various modifications were made, but the canal remained basically the same until it was abandoned. In 1820, for example, the lock attendant asked that the "cut water" be extended to direct more water into the canal,⁵ and in 1822 the overseer requested that the "cross bars" be removed to ease transportation. (Later a "cross bar" was defined as a "beam crossing the locks to separate the gate posts which obliges the boatmen to lower their masts.")⁷ This request was discussed periodically over the next few years, with various officials expressing their opinions; finally the crossbars were removed in 1828, when Commodore Barrie suggested the change so that gun boats could move unhindered through the locks.⁸

By 1825 the canal badly needed repairs. An inspector, Lieutenant Rohe, Royal Staff Corps, reported on its condition and that of the other

canals in the St. Lawrence system. At Coteau-du-Lac both of the entrances to the canal were obstructed and Rohe recommended that they should be dredged. The canal itself needed extensive renovation.

The lock gates, walls and sluices are in a state of rapid decay, they have been so much neglected that nothing short of an entire rebuilding them will suffice to render them permanently serviceable. Should it however, not be thought desirable to undertake so extensive a work at present the locks may be repaired to stand two or three years longer, by pointing the masonry with cement, renewing the sluices and making some small repairs to the gates to render them water tight.⁹

Rohe's first recommendations appear to have been adopted, and in the following year, work began on the canal.¹⁰ Officers and men of the Royal Staff Corps were sent from Grenville on the Ottawa River to Coteau-du-Lac "to carry into effect the repairs of the locks, widen and deepen the canals, and otherwise improve the channels that impeded the navigation of the craft that ply the St. Lawrence." The necessary repairs to the locks were even more extensive than Rohe had predicted, for

on examination...they required very much more repairs than was originally thought, for no sooner was any part interfered with than that adjoining threatened to fall and they had been allowed to fall into such a state of decay that a temporary repair would not render them serviceable.

Nevertheless, at the end of the year the officer in charge reported that

the "locks, sluices, and channels at Coteau du Lac are completed in the most permanent manner possible."¹¹ Incidental repairs were undertaken in 1828-29,¹² and in 1830-31 a breach in the lower lock of the canal required more work.¹³ Captain R.S. Piper of the Royal Engineers was sent to take charge, although the project was placed in the hands of a private contractor, T. Appleton. There were many complaints about the contractor's methods and his finished work.

The repairs to the canal were undertaken on the recommendation of Piper. In August he wrote of the "extreme dilapidation and decay" of the canal, and complained about the workers operating it. Those in charge showed negligence

not only in opening and shutting the gates, but in permitting boats to be forced through in a very negligent manner when too large to be freely admitted by the use of extreme force, and in some instances, having recourse to the assistance of horses, when the strength of men has been unavailing: -- The bows of boats in many instances have been obliged to be cut away an inch on either side to admit of their being hauled through, and then only I can assert, without the possibility of contradiction, with extraordinary efforts.¹⁴

At the end of September, when the work on the canal was completed, Piper reported that

the repairs have been extremely heavy, it having been found necessary on further investigation to renew the whole of the aprons and sills of the lower locks and insert new gate posts both at the foot and upper entrance.¹⁵

The eventual expenditure on the canal exceeded Piper's original estimate and he was called on to explain the excess. The unusual height of the water had necessitated two cofferdams instead of one and constant pumping. Also, while the canal was closed, arrangements had had to be made for warping the batteaux and Durham boats through the rapids. But the main increased had been occasioned by the unforeseen repairs to the canal.

The aprons too were only to have been repaired; but on clearing the chambers, it was found necessary not only to renew them but to insert new Gate posts at foot and head -- The Breach too was considerable and when laid bare from the manner in which the water found its way into it from the back of the wall and round the piers, it became necessary to pump day and night and fill up the vacuum with cross bears of solid oak and bolt them on the solid rock at the bottom and buddle the same with strong clay &c.¹⁶

Although Piper reported that the work was completed in 1831, further construction in 1832 involved the replacement of the middle gates by a private contractor, a Mr. Bronsdon. Complaints about his work followed as soon as he began the job. The lockkeeper at first complained that the work was progressing too slowly and suggested that Bronsdon should be made to employ more men and that the "timber which is put into the gates" should be free from "shakes."¹⁷ Once installed, the new gates soon caused problems. In February 1833, the lockmaster complained:

The new gates are made so much thicker than the old ones that the passage is contracted some inches when they are open, in consequence of the extra thickness of the gates as

also the slide in which the sluice works.-- this latter fault I pointed out to Mr. Bronsdon's foreman, it will be necessary either to alter the gates or take down a part of the mason work, and build it some inches farther back so as to allow the gate to go sufficiently back to its usual extent as it now is I am confident one of the large Durham botas could not pass.¹⁸

As a result of the lockmaster's complaints, Captain Yule of the Royal Engineers was asked to inspect the canal at Coteau-du-Lac. Before departing, Yule played down the lockmaster's report, claiming that there can be no error in the position of the new Gates, that the sills were not taken up, and the new heel posts were placed in the old mortices -- The additional thickness to the Gates, and the alteration to the sluices are received in the recesses of the chamber wall.¹⁹

When he finally visited the site, Yule reported that the south pier of the middle gate had been considerably weakened, and that portions of the foundation wall of the guard lock would need rebuilding.²⁰ By November the repairs suggested by Yule were under way,²¹ and in December Captain Wright, the engineer in charge of the works, reported that the work had been completed.

At the Coteau-du-Lac the centre pier has been taken down and rebuilt. The chamber wall of the Guard Lock has been underpinned, and the piers of the lower lock pointed. The Bar below the lower entrance has been removed, and the channel above the locks cleared.²²

In addition, Wright suggested that the jetty at the upper entrance should be extended 50 feet to gain an additional depth of water in the canal and that the wing wall at the lower entrance should be rebuilt.²³ It is not known whether these alterations were carried out.

The extensive repairs of 1829-31 affected almost the whole of the canal and its fittings. The well-cut and -faced stones forming the canal walls were tuck-pointed at this time or at a later date.

It is doubtful that the canal was changed extensively after this date. In the 1830s the governments of the two Canadas were making studies of the St. Lawrence to devise ways of radically improving its navigation. Also land transportation was being adopted for bypassing the stretch of dangerous water between Lake St. Louis and Lake St. Francis. In the 1840s the Beauharnois Canal was built on the south side of the river, and replaced the chain of small canals of which Coteau was a part.

Nevertheless, the canal at the Coteau was retained by the British government for military purposes. In the 1840s, for instance, Captain Holloway in his report on canals in the Canadas mentioned the government "bateaux canals." He noted that they had been superceded by the Beauharnois, but added that they might "still be of use in case of accidents happening on that canal (either during peace or war) for the transport of stores &c to Lake St. Francis."²⁴ When the Commissariat department considered handing over the St. Lawrence canals to the provincial government in 1846, the Master General and Board of Ordnance ordered that they be retained by the military, to serve as an alternative in the event of the Beauharnois Canal falling into enemy hands and to

help protect the Rideau and Ottawa line of navigation in their rear.²⁵

Although the locks were retained by the government, most of the traffic of the river made use of the newer and larger Beauharnois Canal. Only a caretaker staff was stationed at the fort.

Finally, in 1856, the fort was transferred to the provincial government with the proviso that it would be made available if it were needed for military purposes. The provincial government then leased it to various individuals for grazing and the use of the buildings. In 1866 Georges Beudet leased it, and his sawmill straddled the canal, which it used for water power. The mill stood until well into the 1890s. The site was taken over by the Department of Railways and Canals, which wanted to use the water power and to quarry stone. It is very likely that part of the cut stone of the canal was taken away at this time.

In photographs of the canal in the 1920s, no stone is visible above the water flowing through the canal, nor is there any evidence of lock gates or other fixtures. These had either fallen or had been stripped from the canal and carried away.

Excavation Techniques

Excavation of the artifact-laden debris in the canal was begun in 1965, when the south gate was uncovered. At this time, picks, shovels and a dump truck were used to remove the rubble. Because of the size of the canal (407 ft. 5 in. long and a minimum of 12 ft. 9 in. wide) it was determined to postpone the excavation of the remainder until a more suitable device could be found to remove the backdirt and stone. For the following season, a narrow-gauge railway with two dump cars of

1 and 1-1/2 cubic yards capacity was used to transport the backdirt and small stones to spoil areas outside the canal limits. A small flatcar was used to carry the stones used to construct the canal walls and the boulders used as fill to a storage area. The rail system also included two switches to facilitate the handling of the dump and flat-bed cars. The 20-foot sections of track with attached metal ties could be assembled and disassembled rapidly and easily laid in areas where self-propelled, wheeled vehicles could only pass with extreme difficulty, and even then not without damaging the gate sills on the canal bottom. To protect the workers a portable and adjustable polyethelene A-frame covered the area of the canal under excavation. As the work progressed, the A-frame was moved forward and widened or narrowed to conform to the changing width of the canal.

The first stage of the excavation extended south to the north edge of the middle gate, where the canal bottom drops off sharply. The rail system was reversed there so the rails extended from this point out the north end of the canal where the backdirt was dumped and the building stones stacked. Water seepage hindered the excavation of the north lock, necessitating the use of a gasoline and an electric pump to keep the bottom of the canal relative free of water.

The area north of the north lock gate was excavated by means of a back hoe because of the excessive amount of seepage in this area. No features or even bedrock were uncovered there.

It was assumed before excavation started that the cultural material at the bottom of the canal, disturbed as it was by the movement of water, could not produce a valid vertical stratigraphic record, but it was

thought that articles thrown or dropped into the canal might roughly retain their horizontal position. Therefore the cultural material recovered from the canal bottom was recorded as to its horizontal provenance.

Structural Details

The natural limestone steps which form part of the Coteau-du-Lac rapids descend in a northerly direction up to the south entrance of the canal. Starting at a point a short distance from the south gate, however, the shelving limestone formation rises gradually to the centre gate approach. Here the formation drops off sharply -- a geological factor which may have determined the location of the centre gate.

The drill holes in the bedrock give considerable evidence demonstrating how the canal was blasted out. The diameter of these blasting holes varies from 1-1/4 to 1-5/8 in. and the deepest they penetrate the rock is 2 ft.; at times they pass through more than one layer of limestone. Because of the relative shallowness of the perforations and because the black powder used for blasting was less than perfectly controllable, the limestone faces of the canal are uneven. At times two or three holes were drilled in close proximity and an attempt was made to set off the charges simultaneously, but this did little to smooth the face left by the blasting. Another result of shallow drilling is that the bedrock forming the sides of the canal has been blasted away in descending steps from top to bottom instead of being removed at one time to form a more verticle face. This step formation is more evident near the centre of the canal, particularly on the west side where the limestone is thicker and more homogenous than on the east side.

The canal bottom seems to have been blasted out with basically the same technique described above, but here the limestone strata were removed one layer at a time. This single-layer blasting technique resulted in a canal bottom with a staircase effect, formed by long, level steps with uneven risers ultimately leading downward toward the north. The canal bottom to the north of the centre gate does not, however, show any signs of blasting activity; only natural pockets and fissures were uncovered during excavation. The natural bedrock formation ends abruptly and drops off along an uneven line near the northern gate. A six-foot-deep pit excavated with a backhoe failed to reach bedrock north of the north gate sill, the entire canal bed from the point of the drop-off to the area below and past the apron and gate being formed of rock and earth fill.

The sides of the canal were mostly lined with limestone masonry joined by mortar with some spalls, but only a few sections of masonry have survived the quarrying activities mentioned above. In some sections the buildings stones were well-faced and squared, especially in the gate areas, but little effort was made to face and square the stones used to form the limits of the other sections of the canal. Moreover, protruding sections of bedrock were faced, in a few instances, to form parts of an otherwise masonry wall. Although the basal course of wall stones was usually set on bedrock, at times shaped into a low footing a few inches higher than the canal bed, a section of the east side of the canal in the south lock area was formed of bedrock up to a height of several feet. To continue the wall of the canal up to its full height, a masonry wall was built on the top edge of the limestone formation. Most of the

west canal wall was built against the blasted-out face of the limestone formation in the area of the south lock. However, the west wall of the north lock was built against a man-made dike formed of crushed rock and general debris to separate the canal route from the Deslisle River. This dike, built when the canal was lengthened, extends beyond the northern limits of the north lock out to the juncture of the Deslisle and St. Lawrence rivers.

Because only a few basal sections of the canal masonry remain, little can be said about it other than describing the workmanship in the gate areas as excellent. If the workmanship of the walls carried away for other uses was as good as the masonry that remains, the only reason for the shifting of masonry (a chronic problem in the historic period) would have been a combination of the extreme dampness caused by the water in the canal and the action of frost. If the builders of the canal had had cement for use as a binding agent, rather than lime mortar, it is possible that they would have met with few or none of the structural difficulties described in historic documents.

Features

The first canal feature excavated was the east wing of the south gate, still hinged to a fragment of its post, a fragment of the west gate post, and the gate sill. Both of the tenoned gate posts were found inserted in the morticed ends of the sill. Two recesses in the masonry wall of the gate piers on both sides of the canal were wide and deep enough to contain the gate leaves when they were swung open toward the south and against the current of the St. Lawrence River.

The gate leaf was approximately 7 ft. wide. Of its height 8.5 ft. remained. The thickness of the bottom beam, hinge strap and the wood batten covering the strap is between 5 and 6 in. depending on where the beam is measured. The leaf frame and the grooved planking are of oak, the bottom section of the frame being morticed and tenoned and held together with wooden pegs. The leaf frame beams were further reinforced by the 7 ft. 2 in. strap hinge which was covered with a wooden strip which was bolted to the three beams forming the bottom part of the frame. The frame was also reinforced at the middle by an additional horizontal wooden brace beam. To strengthen the gate panel, 1.5 in.-wide iron strips were inserted under the lower hinge strap and, by extension, under the missing upper hinge strap. Moreover, the sides of these iron strips were inserted into the grooves of the vertically-oriented planks which formed the body of the gate.

None of the opening and closing mechanism of the gate remained. Two bolts, located slightly above the base of the gate leaf, may have formed part of the sluice.

The gate post, sandwiched between two steel plates, was attached to the gudgeoned bottom hinge of the gate leaf by two eye bolts bored to receive the hinge-pin. The eye bolts passed through the gate post and steel plates before being anchored to the post by nuts. After the nuts were in place, the bolts were peened to prevent them from twisting off. The west gate post was formed in the same manner as its eastern counterpart. While the wood used to build the gate and the gate posts seems to date from the alterations of the early 1830s, the hardware used in their construction was salvaged from their predecessors and therefore dates from an earlier period.

The V-shaped gate sill was formed in three sections. The largest extended the width of the canal and, as described above, was morticed at both ends to receive the gate posts. The other large section of the sill was anchored to the south side of the major beam by two long drift pins. The triangular piece forming the point of the sill was attached to the south beam. Moreover, two planks (.4 ft. by .1 ft.) were nailed along the pointed south edge of the sill, possibly to provide a better seal between the sill and the gate leaves.

Centre Gate

Only a few features associated with the centre gate were uncovered during excavation. These were the masonry mortices on both sides of the canal to anchor the tenons of the gate sill and the recesses to receive the gates. These recesses are 7-1/2 ft. long and 6 in. deep, approximating the size of the recesses associated with the south gate. A fragment of the tenon of the east end of the gate sill was uncovered in situ, but the remainder of the sill and the gate leaves were not located.

Immediately to the north of the centre gate, where the canal bottom drops approximately 4 ft., the slightly sloping surface of the drop was faced with mortar, giving it an approximate angle of 45 degrees. Moreover, there are additional but more doubtful indications that the mortar was faced with planks nailed to it. Although there is no definite evidence as to how these planks may have been anchored at the top, the lower ends may have been held in place by a large beam located near the base of the drop-off. It is not, however, known how this beam was held in position because it was not found in situ. Its ends are rotted away, and, furthermore, there is no feature associated with the flanking canal walls to

indicate that it was anchored to them. A possible use of this feature could have been to prevent boats from passing over it at low water from scraping their keels on the edge of the drop-off.

A masonry wall, 31 ft. 6 in. long and parallel to and 10 ft. above the canal bed, was probably associated with the eastern pier bordering the centre lock gate. All that remains of this wall is one course of faced and squared stone resting on a high bedrock ledge. At the southern limit of this wall, an additional 3 ft. of wall, three courses high, abuts it at right angles. At the northern end, a 3-ft. section of mortared rubble also abuts the wall at right angles. A 3-ft.-long beam, 6 in. thick, is associated with this rubble masonry feature, but the historic purpose of the beam is not known. A bank of mortared stone rubble formed in two equal-size steps is located below these features and extends down to the masonry wall forming the east side of the centre lock gate. This 11 ft. to 6 ft. wide rubble provided the fill on which the eastern pier was built.

The North Lock Gate

Several of the horizontal features associated with the north lock gate (replaced by Appleton in 1831) were found in situ. The apron leading to the gate was formed of 17 oak planks, 11 to 12 in. wide, oriented north to south. In addition to these planks there was a 4-in.-wide filler plank. The beam covering the south end of the plank apron is 12 in. wide, 5 in. high and 15 ft. long, and is anchored to the ends of the planks by a series of iron drift pins. Moreover, this beam was notched for a distance of 8 in. at both ends to fit against the masonry angle

formed by the opening into the apron area. A line of 12-in.-wide by 3-in.-thick planks of an unknown length were set vertically into the fill forming the canal bottom along the south side of the beam with their upper ends flush with the apron planks. This series of vertical planks was spanned on its south side by an incomplete 11-ft.-long, 3-in.-thick horizontal plank, apparently intended, along with the vertical planks, to prevent canal water from flowing under the apron and washing out the fill supporting it. The gate sill at the north end of the plank apron was formed almost exactly like the sill associated with the south gate; three sections were joined together by iron drift pins which were driven horizontally from the face of the largest and northernmost beam into the other two, smaller beams, instead of being driven in from the south side as they were in the south gate sill.

The northernmost and longest timber forming the gate is 12 by 12 in. and 15 ft. long with its ends morticed to receive the tenoned gate posts. A fragment of the east gate post found in situ was 12 in. square with half of its lower hinge still fastened to it. The northernmost gate sill beam was also anchored to the fill below by a series of long iron bars sharpened at the end and driven vertically through the beam. More of these pins were used along the eastern than the western end of the beam because a large boulder under the west end prevented anchoring of this kind. Although no remains of the gates were recovered during excavation, recesses were provided for them on both sides of the canal, and striations produced by opening and closing them were visible in the surfaces of the aprons.

Immediately to the south of the apron, in both the east and west sides of the canal, are the remains of vertical planking nailed to a 6-in.-square batten set horizontally into a recess in the masonry canal walls approximately 27 in. above the canal bed. Although only a small section of this feature was uncovered intact, it is possible that it ran the full length of the canal on both sides from the point where the canal bottom drops immediately to the north of the centre gate to the apron of the north lock gate. The overall original height of this planking is not known because it had collapsed or been pulled down when the stone forming the canal sides was removed. Moreover, some of the planks show evidence of burning. It is probable, however, that this planking extended above water level, and that it was added to the canal during the 1831 repairs to reduce the amount of seepage from the lock.

Two 24-in.-high round posts, 14 in. in diameter, were found abutting the planks forming the above-described feature on both sides of the canal. These posts were saw-cut on both ends and not anchored to either the bottom or the sides of the canal. It is not known how or when these posts were used.

Overflow Tunnel

A curving 45-ft.-long tunnel was located on the east side of the canal 6 ft. south of the plank apron leading to the north gate. The tunnel averages 3 ft. high and 2 ft. wide and its bottom is approximately 3 ft. above the level of the canal bed. The sides of the tunnel are built of unfaced stones mortared together, and the vaulted ceiling is formed of interlocking wedge-shaped but unfaced stones.

A water elevation plan, developed by A.E. Wilson from historical sources and data recovered during excavation, indicates that the floor of the tunnel was at least .3 ft. below the water surface level of the canal. It is, therefore, reasonable to assume that some type of gate, probably a sliding panel, would have been used to shut off the entrance to the tunnel. Although no evidence of a gate was found in association with the tunnel because this section had been completely quarried away, similar safety features were mandatory for European canals. If the water in a lock became too high, threatening either the gates or craft in the canal, the gate could be opened to allow the rapid run-off of the excess water and to lower the canal water to a desirable level.

The Octagonal Blockhouse

The octagonal blockhouse appears on plans as early as 1814. It was used variously as a barracks, temporary hospital and Ordnance store. In the cellar were a magazine and a provision store. In 1837 the building, then in ruins, was deliberately destroyed by fire after it had stood vacant for some years.

Structural History

The octagonal blockhouse was built on the recommendation of Lieutenant Colonel R.H. Bruyeres, RE, as part of the construction of 1813-15.¹

By 1 June 1814, the blockhouse was largely complete, in spite of difficulties resulting from its partial collapse.

Complete in every respect, except the chimney part of the stones to Back and Jambs having fallen out, owing to the Quality, not being fireproof, which Breach has caused a small rent to masonry. In other respects it is substantial.

The [chimney] can be remedied by repairing masonry and facing the Interior with Bricks.²

According to a plan dated 8 June 1814 (Fig. 26) the building was completed. The basement was in use as an Ordnance store and the blockhouse above it was designed to accommodate 200 men. In the following year, when the existing hospital proved inadequate, the upper storey of

the blockhouse was converted into a hospital.³ In the bureaucratic furor created by the changeover, a number of letters were exchanged. One which describes the circumstances of the conversion also provides pertinent details of the structure:

It is the upper storey of the blockhouse No. 1 which to admit of the working of a Gun place in it has not been fitted up in the usual manner [i.e. with bunks] but with hammocks substituted in their place to be suspended from a Rail which for the reasons above mentioned is so constructed as to be removed at pleasure; this rail is the only part of the room that has been displaced and can be restored in ten minutes when required. This room can only accommodate 64 men instead of 148 as represented.⁴

In 1823 the blockhouse was again used as a barracks and was described as Octagon Blockhouse -- log building with a stone basement for powder magazine and cellars for provisions, the second storey is fitted up with births [sic] as a barracks and to mount a 24 pounder on traversing-platform on top; 25 feet to wall plate and 35 feet in diameter.⁵

The blockhouse was probably vacated when the garrison was reduced, and by the 1830s it stood in ruins. In 1837 it was ordered destroyed, and was purposely burned in the same year.

The blockhouse being in a dilapidated state and not fit for any defence was ordered to be taken down or fired by Captain Phillpotts, Royal Engineers, and finding it not safe for men to take it down was set fire to and burned

to the foundation to prevent the enemy making a lodgement behind it in their intended attack on the fort.⁶

Structural Information

The blockhouse was a squared-log building with a masonry cellar and a red sheet-metal roof. The cellar was divided into two sections; one half was used as a powder magazine and the other as a store for provisions. In the centre was the base for the chimney, which continued through the blockhouse to the roof. There may have been posts supporting the first storey on either side of the masonry dividing wall. (They appear in Fig. 40 but not in Fig. 39.) Two fragments of wood which may be interpreted as remains of the posts supporting the first storey were found in the basement. Access to the cellar was by a ladder leading to a trap door. All that now remains of the blockhouse masonry are the incomplete octagonal masonry foundation, the wall dividing the cellar and the rectangular chimney base. Excavation revealed charred but largely intact sections of the wood floor on both sides of the cellar and the metal-sheeted door which separated the two rooms.

The standing masonry was built with faced, squared and coursed limestone, probably quarried from stone deposits on the nearby west bank of the St. Lawrence or from the quarry on the south bank of the Delisle River. The first step in building the structure was to excavate a hole the same dimensions as the exterior of the cellar to bedrock, which served as a footing for at least the west side of the foundation wall. A course of wall stone was laid on bedrock with an ample quantity of lime mortar and spalls, and the area between the building stones and

earth face of the hole was filled in with small stones and mortar. At each angle where the eight wall sections forming the octagonal foundation abutted, every other course was linked by a dog-leg cornerstone, whereas the other joints were formed by abutting cornerstones. This process continued until the foundation walls reached a height immediately below ground level. Above this, both the exterior and interior sides were built with faced and squared stones and the space between them was filled with stone rubble and mortar.

The wall dividing the basement was constructed in the same fashion as the outer foundation wall above ground level. The stones forming the door jamb were squared and faced on two sides, as were the cornerstones associated with the chimney support in the centre of the dividing wall. A small trapezoidal opening with a plastered bottom is situated to the east of the chimney support. This opening (lamp recess) housed a lantern behind a pane of glass which protected the explosives from the flame. Fragments of this pane were found scattered on the floor below the opening.

Below floor level on each side of the chimney support, a small drain provided a water exit from the powder magazine to the storeroom. From the storeroom, an external drain carried the water below the surface to a point beyond the earthworks.

The basement floor was constructed of several transverse planks .8 to .9 ft. wide by .1 ft. thick, nailed to a series of log joists oriented in a north-south direction. A crude stone footing along the inner face of the foundation wall supported the floor in this area, and the space under the floor planks was filled with earth and small stones. The door which separated the two sections of the cellar was double-planked,

consisting of several longitudinal planks, tongued and grooved and .9 x .1 ft. in size, backed by a transverse row of .75 to .9 by .08 ft. planks, also tongued and grooved. Wooden pegs held the two thicknesses together. Three equal-sized sheets of a copper alloy were fixed to one side of the door by three different kinds of brass tacks. The lock, attached to the door with several screws, was found complete with its keyhole cover. Although the door was not found in situ, it was apparent that the spark-resistant metal panels faced the powder magazine side and that the door hung on the west side of the doorway.

Although nothing except a few fallen stones (probably from the fireplace) and large amounts of hardware remains of the first floor, documents show that it was the main sleeping area, where three-tiered bunks were placed around the outer wall. The large fireplace opened on this floor. The entrance to the structure was reached by steps on the exterior.

Access to the upper storey was by a ladder fastened against the central chimney. On the upper floor it was planned to mount a 24-pounder, and there was provision for hanging hammocks.

The walkway on the south and east side of the blockhouse was separated from it by a narrow drain. The stones of this walk were laid without mortar and with little attention to their position or shape, except for the border stones which were roughly squared.

The log palisade on the north side of the structure was defined by several fragments of upright butts measuring .5 to .6 ft. in diameter. The palisade appears for the first time in plans of the fort in 1815. It seems to have disappeared by the 1830s, but was replaced during the

Rebellion. The palisade base was supported by a narrow band of unworked stone. The log palisade would not only have contributed toward the protection of the fort from river raiders but would also have served as a useful break against the winter winds blowing off the frozen river.

Commanding Officer's Quarters

The commanding officer's quarters may have pre-dated the War of 1812 and provided accommodation until it was destroyed by fire in 1870.

Structural History

The commanding officer's quarters appears on the 1814 plan (Fig. 26) as a completed building with a wing to the rear and one on its south side. On the plan of 1815 (Fig. 27) these additions are called the "Commg Officers' Kitchen and Mess Kitchen;" no differentiation is made between the two. The main part of the house is called the "Commg Officers' Quarters, Frame Building, one sitting Room, two Bed Rooms, & Mess Room."

The building may have antedated the War of 1812. Although it was a shingled frame house with features common to earlier structures on the site, the good condition of the building in 1812-14 strongly suggests that it was a relatively new structure at that time. Perhaps it dated from the beginning of the war, when a large garrison was stationed at the fort.

By 1815-16, the building had assumed the shape which it retained until its destruction. In 1815 fire had destroyed the rear wing ("the officers' mess kitchen"). A board of inquiry established to investigate the fire gave the following report:

We the president and members of the Board proceeded to examine into the cause of the late fire which took place on or about the 13th day of December 1815 in the temporary shed occupied as the officers mess kitchen are of the opinion that it arose from mere accident, the stove pipes having communicated fire to one of the beams which caused the destruction of the roof and the greater part of the building.¹

The fact that the rear wing was only a "temporary shed" may account for the few remains found during excavation. The presence of stove pipes may indicate that there was no fireplace; at least no remains of one were found during excavation. The destroyed kitchen was replaced by the addition on the north end of the building.

An estimate for repairs to the building in 1819 discloses many structural details:

Commanding Officers Quarters and Officers Mess Room, the roof, window sashes and shutters to be renewed, partitions and upper floor to be repaired, pointing of chimneys, painting the inside walls and roof, and a drain to be made in the cellar.²

And in 1823 the building, still in good repair, was described as follows:

Commandant's Quarters, office and mess kitchen. Framed building on a stone foundation. Clapboarded, shingled, 36 x 29 feet with wings at each end. The right wing is 26 x 21 feet and the left is 18 x 18 x 21 feet. In tolerable repair; very trifling repairs required.³

In the following year, the building was transferred to the customs collector, Mr. Simpson, then stationed at Coteau-du-Lac.⁴ Simpson,

an enterprising individual, soon had others boarded there. When the allocation was questioned three years later, it was stated that "field officer quarters are allotted to a collector and some of the rooms to civilians."⁵ On a plan of 1833 the building is marked as a "Post Office."

By 1857, it was one of the few buildings still in a habitable state and was occupied by a barracks sergeant in charge of the fort. He submitted the following report when the building was transferred to the provincial government: "Commandant's Quarters and mess house occupied as a Barrack Office, bedding store and Barracks sergeant's Quarters, contains 9 apartments, including attics, this building is in good repair."⁶

After the fort was leased, the building was occupied by workers in Georges Beaudet's mill.⁷ Their complaints about the roof leaking in heavy rain indicate that the condition of the building had deteriorated. Finally, two years later, the building and the commissariat quarters were destroyed by fire when sparks from the chimney ignited the roof.⁸ On the back of the letter describing the burning, William Coffin, the Ordnance Land Agent, commented, "these buildings were very old and of little value, the loss is not great. I do not see that anything requires to be done." The remains of two buildings "destroyed by fire" were sold in 1872.

Structural Details

The commanding officer's quarters was a one and one-half storey frame building with a masonry foundation and a full cellar under the main part of the building. The masonry walls forming the cellar have been heavily quarried, as were the hearth bases abutting both the north and south ends

of the cellar and the hearth base and masonry foundations of the north wing. The remains of an outside cellar entrance are located under the north wing and indicate that this entrance was used before the construction of the addition. The foundation, hearth and chimney base of the south wing were quarried less than those in the cellar or north wing. This might be due to the inferior quality of stone used in the south wing.

Outside the architectural limits of the structure, the remains of a stone walkway and (possibly) a masonry doorstep were unearthed on the east side of the building, and the remains of a rectangular stone and brick feature were all that was found on the west side.

The Cellar

The masonry walls forming the cellar were built with large, roughly faced and sometimes squared stones quarried in the immediate vicinity of the fort and recovered from the ground when the cellar hole was dug. The stones were randomly coursed with a generous quantity of lime mortar and spalls, while the area between them and the earth face of the pit was filled with rubble and clay mortar. While the greater part of the cellar walls was built of stone which could have been easily handled by a mason and his helper, many of the cornerstones were monolithic. For example, one of these stones measured 5.5 ft. x 2.2 ft. x 1.5 ft. and would have required several men to move it into position.

Abutting the south wall of the cellar are the remains of a hearth base built of large well-mortared stones sunk below the cellar floor. The base of another hearth, which abuts the north cellar wall, was constructed of the same materials as the opposite hearth base. A post and

and lintel drain cuts through it and the cellar wall behind it. A similar drain, uncovered in the northeast corner of the cellar, is probably the one referred to in 1819 when repairs were made to the building. It is assumed that the drain passing through the north wall of the cellar and under the north wing was built before the addition of the latter, sometime before 1815. At least one of these drains empties into the ditch surrounding the land side of the fort.

A layer of lime mortar, .2 to .3 ft. thick, formed the cellar floor, laid after the construction of the cellar walls. Several fragments of charred and rotted wood mixed with the general rubble in the cellar are probably remains of the floors of the rooms above.

The cellar and the outside north entrance to it were probably built at the same time; however, the entrance was filled with stone rubble and lime mortar when the north wing was added to the central section. The walls forming this entry were well built of roughly squared and faced stone cemented with liberal quantities of lime mortar and spalls. As will be noted in the plan drawing of the building, the walls forming the entrance are considerably narrower than those forming the cellar. Also associated with this feature is a considerable part of the door sill which was located in the entrance to the cellar. This indicates that a complete frame and its accompanying door cut off the cellar from the door well. Presumably there was an exterior storm door to keep the wall free of rain and snow.

The first addition to the commanding officer's quarters was either the south or the west wing. Because the south wing was of permanent construction and the west wing temporary, the former will be described first. Little effort was made to square or face the building stones of

the foundation, hearth base and chimney buttress of the south wing, which were joined with clay rather than lime mortar with little coursing.

The lower section of the east foundation wall is approximately twice as wide as the other walls associated with the south wing. There is a possibility that the lowest section of the wall was built so it did not align properly with the eastern cellar wall and was widened to correct the original error. A hearth base was probably built at the same time as the south foundation, but since the chimney support abuts the outside of the same wall, it may be a later addition. Like the south wing foundation walls, the two latter features were built with clay rather than lime mortar.

Within the foundation walls, a layer of crumbled orange brick -- probably from the chimney -- was found on top of a layer of the charred remains of the floor. Below the charred wood, a thin layer of brown artifact-bearing soil covered the sterile clay on which the foundation, hearth and chimney base had been built.

A room attached to the west side of the south wing could have been built at the same time as the wing or later. The room appears on Durnford's 1823 building plan; in fact, without Durnford's plan, the line of seven stones which represents the base of this addition could well be mistaken for a stone border edging a flowerbed or a dirt walk.

The only feature considered part of the officers' mess kitchen is a section of brick floor and a large squared and faced stone which might have been associated with a connecting doorway.

The foundation walls of the north wing were built of well-faced and squared stones joined with liberal amounts of lime mortar. Before

construction, however, the walls forming the outside entrance well were levelled to a maximum height of three feet and the debris dumped into the entrance well for fill.

A small hearth base was built in the northwest corner of the room, and was later enlarged. Nothing of the hearth itself was uncovered during excavations. All that remained of the floor was a layer of charred wood level with the top of the hearth base.

On the east side of the building a narrow walk of split fieldstone provided a mud-free passage the length of the building. The south end of this feature is not exactly known because a section was inadvertently removed. What appears to be a masonry "doorstep" is located outside the southeast corner of the cellar. A corresponding doorway does not, however, appear on the 1823 plan of the structure. The butt of a wooden post .6 ft. in diameter was found at the southeast corner of the south wing, 2 ft. below the contemporary ground surface. The use of this post is not known.

Storehouses

The Storehouse/Temporary Officers' Quarters and Storehouse/Gunshed

During the American Revolution at least two storehouses were built adjacent to the south side of the canal. The documents do not differentiate between the two, except to say that the first one constructed served as a general storehouse and the second for the storage of rum. A general description made in 1780, shortly after the completion of the first building, could refer to either of the storehouses which later stood by the canal.

The storehouse is properly proportioned and well Built; the middle loft I have assigned for dry species and will contain about one thousand barrels of English flour, the lower or ground floor will stow about thirteen hundred barrels of pork...and I reserve the upper loft for biscuit and necessaries for the batteau men.¹

Shortly after the construction of the first storehouse, a second was erected. By April, the commissariat officer complained of the need for "a safe storehouse at Coteau du Lac, to contain a quantity of Rum for Oswegatchie, Carleton Island, and Niagara, to be transported there during the slaying [sic] months."² This idea met with approval; in February of the following year it was reported that "the new storehouses and other buildings at Coteau du Lac are all compleat."³ Between the

American Revolution and the War of 1812, general references were made to the dilapidated condition of the storehouses and other buildings at the post. The Rudyerd sketch of 1788 (Fig. 5) shows the two storehouses.

There is still no differentiation made between the buildings in 1814, when the two are shown on a plan simply as "large stores" (Fig. 26). In a report of 1 June 1814, they were described as "two long stores, log buildings, have undergone temporary repairs and now occupied as a Barrack and Ordnance Store."⁴ The need for temporary repairs before occupation indicates that they were older buildings on the site.

Storehouse/Temporary Officers' Quarters

There appear to have been two buildings on this location. One, originally a storehouse, served as a combination storehouse and officers' quarters during the War of 1812 and stood until the 1820s. The other building, used as a commissariat storehouse, appears on plans as late as the 1850s and was probably sold with other buildings on the site in 1872.

Structural History

On the 1815 plan (Fig. 27) the building in question was described as an "Old Store, Log Building, 1st Storey, Barracks and Engineers Stores; 2nd Quarters for 4 caps., 6 Subalterns, and Garrison Orderly Room; Garr[e]t, 2 Rooms, Barrs & Ordnance Stores."⁶ The building, even with its repairs, proved to be a less than satisfactory barracks for officers. In 1817 there was a fire, and the officer in charge suggested that the men quartered there be given lodging money to find accommodation elsewhere.

I have the honor to report for the information of His Excellency the Commander of the Forces, that in consequence of the ruinous state of the building appropriated for the officers at this post, and the necessity they are under of carrying stove pipes through the roof, the building was discovered to be on fire on the evening of the 14th instant, but as every possible exertion was instantly made, the fire was fortunately extinguished without any serious accident occurring. As the upper part of this building contains a large quantity of Barracks and Ordnance stores and the whole of the Engineers stores being deposited in the underpart, I am induced by request lodging money may be allowed the two officers and clerk of works who occupy it.⁵

By 1823 the building had deteriorated even more. Described as a "Framed log building, basement of stone, Clapboarded and shingled," it required the following repairs: "The rafters are giving way the sills and posts are in a state of decay; the shingling very bad and the whole in a very bade state."⁶ It was described as a temporary officers' quarters. A building does not appear in its position on the plans of 1831 and 1838, indicating that it was torn down shortly after Durnford made his report.

By the 1830s a much smaller building was standing in this location, termed "the Commissariat Store." In 1857 this building was described as "Commissariat Store, a frame building, in good repair."⁷ Ten years later it was still in good condition, aside from needing new roofing: "La neuvième est un autre hangar en bois, près du Canal. Ce hangar est très bon à part le bardeau de la couverture."⁸

The dimensions of the later building, taken from plans, seem to have been approximately 40 x 25 ft. A return of the buildings in 1851 gave the dimensions of the commissariat store as 39.0 x 23.8 x 7.6 ft. This is a significantly smaller building than that of 1823. Like the earlier structure on the site, however, it was built of wood, and probably sat (at least partly) on the earlier masonry foundations.

Structural Details

The storehouse/temporary officers' quarters of 1823 was a framed log building, built pièce sur pièce, clapboarded, standing on a stone foundation, having a shingled roof. A central chimney ran through the building. Its dimensions from the plan were 64 by 27 ft. These dimensions vary considerably from those of the building standing in the same position in the 1850s.

Only a few courses of the outside masonry foundation walls, one or two hearth bases and two stone bearing foundations have survived heavy quarrying activities. The double-faced foundation walls which form the basement were built of randomly coursed, rough-faced and (at times) squared stones laid with a reasonable quantity of lime mortar and spalls. The walls forming the south and east sides of the building were interspersed with sections of bedrock which in some places formed part of the wall and in others served as a footing. Where the bedrock was not high enough, the walls were built on the native clay.

The masonry sill of a doorway was located at either end of the east wall. The north doorway measured 5.5 ft. wide and the southern one was .2 ft. wider. Although a wooden sill was not found in association with

former doorway, one .42 ft. wide by .34 ft. thick was uncovered on the stone sille of the latter. The size and shape of the sill indicates that the wooden door jambs could have rested on the masonry because the sill did not abut the two masonry jambs.

The two dry masonry bearing foundations, on which the partitions supporting the second floor and the first floor joists rested, are parellel to the east and west foundation walls. At the south end of the building the bedrock rises to replace these two features. There is a gap in these features which corresponds to a similar opening in the east outside wall of the building. Because the above openings are in line with each other and one leads to the outside of the building, they may represent the course of a drain which carried water from the warehouse floor.

The large hearth base consisted of a masonry core with aprons abutting its south, east and west sides. The core was solidly built of stone rubble set in lime mortar and was framed by a low wall (two courses) of fairly well squared and faced stone. The south and west aprons were built of one course of squared and faced stones while the eastern apron was built of two courses. The lack of an apron on the north side of the hearth base might be explained by a partition across the width of the building in line with the north side of the hearth in Durnford's 1823 plan of the building (Fig. 52).

During the excavation, a pile of squared and faced building stone was uncovered to the west of the large hearth base. One could infer that these stones had formed part of the hearth base, and after it was dismantled they were piled nearby for later removal.

A small rectangular feature, possibly another hearth base, was built of a single layer of flagstone on top of .5 ft. of mortar mixed with dark brown loam. If this was not a hearth base, it could have supported a cast iron stove or a set of scales.

Possibly the basement was floored with an uneven layer of clay-mortar mixture, .1 to .2 ft. thick; however, several fragments of badly decomposed wood were found to the immediate north of the large hearth base, and another was recorded near the north wall. Actually, the original provenance of this wood is unknown, for when the building was dismantled bits and pieces of material were probably left scattered about. If the clay-mortar mixture represents a floor level, it more or less matches the top of the masonry footing, but sections of bedrock would have protruded above it at the south end of the building.

A secondary-double-faced wall, one to two courses high, was built on a layer of brown earth at the approximate level of the door sill at the south end of the east wall. This feature may be a fragment of a larger masonry wall. It does not appear on Durnford's 1823 plan of the building, but it may have been added to support the south end of the commissariat/storehouse later erected on the same location.

Outside the southern entrance, a section of bedrock obstructs easy access to the building. Although part of this had been blasted away (the .1 ft. drill holes are still visible), enough remains to indicate that for entering or leaving the building, the northern doorway would be preferable. Possibly the above-mentioned bedrock was not removed because further blasting might have endangered the bedrock face of the canal. The rest of the bedrock bordering the canal in front of this structure was unobstructed, and presumably was used as a walkway or loading platform.

Storehouse/Gunshed

The storehouse appears to have been erected during the American Revolution and stood until the late 1820s. Throughout its existence it was used solely as a storehouse for a variety of goods.

Structural History

In 1815 this building was used as a barracks and commissariat storehouse. On a plan from that year (Fig. 27) it was described as an "Old Store, Log building, 1st Story Commt. Store; 2nd Commt. & Barr[acks] Stores; Garr[et], Commt. and Barr. Stores." Although not mentioned, the long narrow gun shed addition to the rear of the building shown in Figure 56 had already been constructed. This was probably added in 1814, since the plan of that year (Fig. 26) describes it as "the new store for artillery."

By 1823, the storehouse had deteriorated considerably and was described as a

framed building, on stone basement; shingled and clapboarded. 64 feet x 26 feet 6 in., two storeys high, the gun shed is 64 x 14 feet. The rafters are giving way, the sills and posts are in a state of decay, the shingling very bad and the whole in a very bad state.⁹

The building is no longer shown on plans after this date, although in a cross-section of 1831 two foundations appear in this position. In 1827, a new gun shed, built opposite the guardhouse, could have replaced it.

Structural Details

The main part of the building was a framed log structure with a first storey of stone. It was clapboarded and had a shingle roof. A row of posts ran along the centre of the floor to support the upper storey. There does not appear to have been a hearth.

The lower section of the structure is now represented by randomly laid courses of masonry wall constructed of fairly well squared and faced limestone joined with a generous quantity of lime mortar and spalls. While the excavation was being levelled off, remnants of two masonry bearing foundations, almost identical to those found in the nearby barracks/storehouse, were uncovered at floor level. No definite remains of wood floors were uncovered in either of the two structures, so possibly the floors in both were of hard-packed clay; however, wooden floors may have been removed when the buildings were demolished.

A doorway is located on both the north and south ends of the side of the building facing the canal. Although the sill and sections of the stone jambs associated with the north door are still intact, this is not the case with the south doorway, where the construction of a stone-lined, earth-filled ramp running from the canal to ground level in the fort destroyed details of the doorway. All indications strongly suggest that this ramp was constructed after the superstructure was removed, presumably so goods could be brought easily from the canal into the fort. This doorway is also partly blocked by protruding bedrock.

The artillery shed to the rear of the building was a simple wooden lean-to. No indication of this structure was found except for one of two sections of beam that may have been part of a wood wall sill. The building had a clay floor.

The North and South Blockhouses

The North Blockhouse

A blockhouse probably stood on the site of the North Blockhouse from the period of the time of the American Revolution. The foundation remains indicate that the building was reconstructed, the new structure taking the same trapezoidal shape as the previous one, but oriented in a different direction. In addition to its defensive function, it served as a barracks and also as a storehouse at various times. By the 1850s the blockhouse no longer appears on plans, although there is a small shed shown near the base of the platform on which it was built.

Structural History

As early as December 1779, there were two blockhouses on the site; after a visit at that time, Twiss reported that he had inspected the "two small blockhouses, compleat."¹ The head and foot of the canal would have been logical positions for these structures. The north blockhouse was destroyed sometime after 1779, for a sketch of the fort made in 1788 shows no blockhouse in its position.² The blockhouse was reconstructed, probably in 1813, when a large amount of construction was undertaken at the fort.

In 1815 the north blockhouse, then a "log building 2 Story"³ contained Ordnance stores. By 1823 it was "in very bad repair" and was

considered "not worth repairing."⁴ At that time it was described as "a log building, basement storey of stone, 16 feet to wall plate." In spite of its deteriorated condition, it continued to stand on the site for some years after 1823. A plan of 1834 shows no building on its position, but an 1838 shows a structure on the north blockhouse's site, although the former does not have the same shape as the blockhouse. Plans in the early 1850s show a shed at the base of the platform retaining wall below the former position of the blockhouse, which is drawn only in outline. This may indicate that only the platform foundations remained.

Structural Details

The north blockhouse was a two-storey log building sitting on a deep masonry foundation. The top floor projected over the lower storey to provide machicolation. There were no signs of a fireplace hearth or other means of heating.

In constructing the blockhouse, a trench was excavated into the clay talus and a double-faced, random-coursed stone foundation was built of fairly well squared and faced stones laid with clay mortar and a great many spalls. Unfortunately only three of the original four walls which formed the trapezoidal primary foundation have survived, so the exact location of the north wall or the precise length of the east and west walls is unknown. The blockhouse at the south end of the canal has an almost identical shape, however, so it is possible to infer the shape of the missing section of the north blockhouse. After the construction of the primary foundation and at a later date, another foundation was built

over and through it. In contrast to the earlier foundation, the latter is single- rather than double-faced. To build it, most of the earlier masonry was torn down until only one or two courses remained. The southeast corner of the early foundation was, however, left at the same height as the later foundation. We can deduce from this either that the corner was left to support the second blockhouse or that it was unnecessary to tear down the corner in order to build the secondary foundation. The north secondary foundation wall also failed to survive the ravages of man and time.

To the west of the blockhouse is a masonry retaining wall, built with a positive batter, from the same time as the last change in the blockhouse foundation. Because this wall was built concurrently with or before the earthworks, we may infer that the new orientation of the blockhouse foundation was part of the defensive replanning of the fort in 1813. The retaining wall supported the earth used to build the earthworks and formed one side of the platform on which the blockhouse foundations were built. Another retaining wall, between the blockhouse and the canal, was constructed to hold back the earth and also to make access to the fort more difficult. As the plan indicates, the latter wall (in contrast to the others) was built on a stone footing.

Later a low masonry wall was built from the northeast corner of the platform retaining wall to a point near the north end of the canal. This wall was built to keep the earth fill in place between it and the west side of the canal. This fill would be necessary to strengthen the west bank of the canal because of the absence of bedrock or a natural earth deposit. The wall appears on plans for the first time in 1837,

when it is designated as the position of a proposed barricade. It continues to be shown on plans after this date.

What may be the remains of a split stone floor of a temporary kitchen or ox shed which appear on the 1814 plan (Fig. 26) were found between the east wall of the north blockhouse platform retaining wall and the west wall of the canal. From the plan it is not clear whether these structures were built at the base of the retaining wall or sat on fill added north of this wall. In either case, the kitchen appears to have opened on the fort square.

The rotted remains of the wooden sills of the temporary shed which abutted the base of the north blockhouse platform retaining wall were sufficiently preserved to determine its northern, southern and western limits.

The South Blockhouse

The south blockhouse was very like that at the other end of the canal in construction, and also seems to have been built during the American Revolution. In addition to its defensive function, it served as a barracks and storehouse throughout its existence. By the 1830s a blockhouse is no longer shown in this position.

Structural History

Unlike the north blockhouse, the blockhouse at the southern end of the canal does not appear to have been reconstructed and probably survived the period between the American Revolution and the War of 1812.

In 1815 it was in use as a field officer's quarters and was described as a "Log Building, 2 Story, 2 Rooms."¹ It was described in 1823 as a "log building, basement storey of stone, 16 feet to wall plate" and had deteriorated to such an extent that it was considered noth worth repairing.²

The blockhouse is not shown on the plan of the fort from 1834, and in 1838 only a square outline is drawn in its position. On plans from the 1850s, a much smaller structure (possibly a privy) is shown on the edge of the platform which the blockhouse formerly occupied.

Structural Details

The south blockhouse was almost identical to the one at the north end of the canal. It was of log construction and had two storeys and a basement. The top floor projected over the lower wooden storey to provide machicolation. There is no indication of a fireplace hearth or any other means of heating.

The double-faced foundation wall was built of quarried stone, laid with spalls but without mortar. This was also the case with the platform retaining walls, which were built with a slight positive batter. The western retaining wall abuts the dry masonry escarp which supports the earthworks on the southern side of the fort; this indicates that the western retaining wall of the blockhouse platform was constructed after the escarp. Although the blockhouse itself predated the formation of the earthworks, at least the western retaining wall forming the platform on which the building stood was built when the ditch was excavated and would, therefore, be contemporary with the construction done in 1814.

The retaining wall running from the east side of the blockhouse platform toward the west side of the canal was built essentially in the same manner as the other retaining walls built in conjunction with the blockhouse. The area between the western bank of the canal and the eastern platform retaining wall was later filled with rubble, thereby covering and protecting this wall from the quarrying which went on after the fort ceased to be occupied as such. The trapezoidal shape of the south and north blockhouses, unique among blockhouses in Canada, may have been an innovation introduced by Twiss, the engineer in charge of the construction of buildings during the revolutionary period.

The Hospital

The hospital, probably an earlier building, perhaps a storehouse, appears in a sketch of the site in 1788 (Fig. 5). It was converted into a hospital during the War of 1812 and served as such until after the war. It does not appear on plans after 1823.

History

On 1 June 1814 this building was described as one of "two small log buildings situated on the Eastern side of the canal [which] have undergone temporary repairs, one occupied as a Hospital, the other, orderly room, Q. Master Store, Taylor's Shop."¹ On a plan dated 8 June 1814 (Fig. 26) the building is described as a hospital, while on the 1815 plan it appears as a "Hospital, two Wards, Log Building, will contain 20 men" (Fig. 27).

Shortly after the war, the hospital was in such poor condition that patients could no longer be accommodated. At the end of 1815, the sick were removed to the upper storey of the blockhouse "on account of the hospital being so much out of repair."² The doctor, in his certificate justifying the move, complained that the "old building" was "in so very bad a state that the patients were contracting fresh diseases from exposure to the wet and cold."³

Although the building is shown on the plan of 1823, it is the only building for which there is no example among Durnford's drawings and was, therefore, no doubt very dilapidated. It is not shown on subsequent plans and very probably was removed soon after 1823.

Structural Details

The hospital was a small building constructed of logs, probably squared and set pièce sur pièce, a common building form in the area. It was internally divided into two wards and could accommodate only 20 men.

The Cellar

When the building was constructed, a small cellar was dug in the middle of the structure by making a pit 20 x 15 x 4 ft. A clay ledge approximately 3 ft. wide and 1 ft. above the earth floor of the cellar was left on the south, east and west sides of the pit. This ledge served as a footing for crude walls of rubble and mortar. Although no stone wall was built at the north end of the cellar, the remains of a beam which may have been a footing for a wood wall were found there. Masonry foundations were constructed at the southeast and southwest corners of the structure, whereas large footings were built at the northeast and northwest corners. From the corners crude rubble walls ran toward to footings to the north; the west rubble wall abuts the first footing to the north. The east wall did not run directly between the corner and footing, but jutted into the cellar. This could have been the base of a doorway which allowed entrance from the outside by means of a few steps.

Although some remains of wood were found at the lowest levels, they are scattered and provide insufficient evidence for the presence of a wooden floor; the floor of the cellar was probably earthen. A layer of what appears to be fallen masonry mixed with powdered mortar was found over the cellar area. After the building was abandoned, the cellar was probably partly filled with debris, and the previously-mentioned rubble walls between the pillars and corners either collapsed or were pushed into the cellar. Although the original provenance of the mortar is uncertain, presumably it was used instead of mud mortar in the construction of the rubble walls above ground level, or it may have been stucco covering the upper section of the foundation walls.

The foundations consisted entirely of footings, except for the two corners at the south end of the cellar. While the footings of the northern half of the building are high and well-built, those at the south end are very low and were probably constructed to support the addition to the building. Presently there are eleven footings, but originally there may have been one or two more which were mates to the single southeast footing if the addition was not built on the ground in this area.

The hearth base was built of split-faced rubble joined with mud mortar. Originally it was much smaller -- only 7 by 8 ft. -- but aprons extended the hearth 3.2 ft. on both the north and south ends.

Running from north to south along the west side of the building is a crude walkway of broken stone. The southeast corner of the area, which was desodded before excavation, contained part of a rubble walkway running from the canal to the octagonal blockhouse. The remains of an earlier walkway connect the hospital to this major walkway.

The only remains found of the superstructure were a rotted beam resting on the three northern footings. This, and similar beams on the other footings, probably served as a sill.

The Cloverleaf Bastion

Gun Platforms and Flagpole Base

Little remained of the three traversing gun platforms which, in combination with their associated earthworks, formed the cloverleaf bastion built in 1813-14. Generally, the three platforms are D-shaped and are formed by numerous longitudinally-placed planks 10 to 12 in. wide and no more than 2 in. thick. These planks were joined by square-headed nails to widely spaced, transverse sleepers .05 and .06 in. wide and approximately 5 in. thick. In most instances, the sleepers had completely rotted -- a state of affairs common to other gun platforms excavated at Coteau-du-Lac.

The shape and horizontal limits of the northernmost gun platform were defined by a few fragments of wood and a patch of dark, organic soil which corresponds to the shape of the platform. This patch of dark soil stood out in sharp contrast to the undisturbed clay layer bordering it, matching the ends of the longitudinal planks. The minimum north-south extension of the platform measures 19 ft. and its east-west width is 27.2 ft.

The form and horizontal limits of the southernmost gun platform were determined by the limits of the longitudinally-placed planks only, because no changes in the soil marked the location of this platform as they did in the case of the northernmost one. Sections of the platform were

carbonized, suggesting that they had been damaged by fire, but it is not known when this took place. The minimum measurements of the platform are 15.8 (north-south) and 21.8 (east-west).

Although the size of the northern- and southernmost gun platforms varied by a few feet, they are obvious mates in design and concept. Their orientation indicates that they were made to provide firepower up and down the St. Lawrence River and to cover both approaches to the canal. The eastern gun platform, however, is not only larger than the other two but is oriented toward the St. Lawrence River only, thereby making the passage of enemy craft up and down the river extremely hazardous. This platform is bilaterally symmetrical, while the other two platforms were probably asymmetrical, with east sides shorter than west.

The minimum measurements of the eastern platform are 26 ft (east-west) and 27.4 (north-south). Both the salient, round-ended point of the platform facing the river and the terminal point are defined by the ends of the longitudinal planks and the remains and depression made by their sleepers.

Although the cloverleaf bastion was constructed in 1813-14, the gun platforms uncovered during excavation may date from 1837-38, when several new gun platforms were laid in the fort.

A search for the flagpole base, which is historically associated with the bastion, yielded a well-preserved cruciform base, four slanting supports and several unworked stones which held the pole upright.

Prehistoric Remains

During the last days of the 1965 season, the last month of the 1966 season and two weeks during the late spring of 1968, two burials, numerous fragments of scattered human skeletal material, faunal remains and indigenous artifacts were recovered from the cloverleaf bastion. Most of this material was, however, recovered out of context because the British had levelled the indigenous habitation area on the point and had used the surplus, as well as other fill (also containing cultural material) to build the earthwork forming the bastion. Other fragments of indigenous pottery and projectile points were also found at other locations inside and outside the enclosed area of the fort.

Only one of the burials was undisturbed by European activities. It was located beneath the southern section of the earthworks, close to but deeper than another burial, which was disturbed and closely associated with fragments of European ceramics and glassware. An additional burial, partly uncovered under the earthworks in the same area, was filled in toward the end of the 1966 season. Several artifacts were uncovered from the same area as the undisturbed burial: two bone "daggers," a wedge-shaped antler object, a river pebble incised with a smiling human face, a small copper hook, a large hook-shaped bone object, a butterfly-leaf bannerstone and two worked bear teeth. Several small fragments of red ochre were also noted.

The disturbed skeleton was probably unintentionally mutilated by the builders of the earthworks. Although most of it was found in a reasonably articulated condition, all of the facial bones and most of the skull were missing. Moreover, no artifacts definitely accompany this skeleton.

A number of scattered human remains were also recovered during the excavation of the bastion. A small concentration of fragmented skeletal material was recovered from a patch of red-pigmented clay in the southwest corner of the east side of the bastion, and a mixed group of bones from at least two individuals was uncovered immediately under the planks forming the gun platform in the southern leaf of the cloverleaf bastion. Although the first-described concentration of human remains represents the only instance of large quantities of red ochre, some of the scattered bones in the eastern leaf showed a reddish tinge and small isolated nodules of red ochre were frequently noted.

In addition to the skeletal remains from the bastion, approximately 100 sherds of indigenous pottery were recovered. Although they are characteristically Point Peninsular, two sherds have been identified as Onandagan; but no other typically Iroquoian artifacts have been noted.

Approximately 2,000 complete or fragmented indigenous artifacts were recovered. Most of these were made of bone or antler into simple points, multi-barbed fixed points, awls and barbed and conical harpoons. Numerous complete and fragmented worked beaver incisors represent another form of artifact.

Stone objects included slate knives and stemmed points, flaked side-notched chert points, a few large chipped blades, a few abrading stones, chipped celts, adzes, plummets, two single-holed gorgets, and the bannerstone associated with the burial, mentioned above. A few copper fishhooks, a stemmed copper point and some copper awls were also recovered. The only other indigenous artifact is a pipe which came from

the excavation of an historic structure not directly associated with the bastion. The pipe seems to be a widely used type, usually identified with the Micmac during the historic period.

The indigenous remains and artifacts recovered during excavation are currently under analysis by Richard Lueger. The human skeletal material has already been studied by J. Edson Way of the University of Toronto. Dr. Howard Savage of the Royal Ontario Museum, assisted by Jim Burns, formerly of the University of Toronto, have completed a detailed analysis of the bird, mammal and turtle bones recovered from the bastion. D.E. Lawrence of the Department of Energy, Mines and Resources was kind enough to examine and identify the stone of which some projectile points and other artifacts were made and to suggest sources areas for this material. A. Couture of the same department produced an analysis of the copper artifacts recovered during excavation. All of this data will be included in a separate report to be published elsewhere.

Hospital/Master Carpenter's Quarters

The hospital/master carpenter's quarters seems to have been an early building on the site which was converted to its two uses during the War of 1812. It is shown on Rudyerd's sketch of 1788 (Fig. 5). After 1815 it no longer appears on plans. On 1 June 1814, this structure is described as a small log building used as an "Orderly room, Q. Master store, Taylor's shop."¹ On a plan of 8 June 1814 (Fig. 26) it is designated as a "Hospital and Master Carpenter's Quarters."² In 1815, no building is shown on its site. The short life of the building as a hospital during the War of 1812 probably means that many of the features of the structure must be explained in terms of its previous occupation(s).

Structural Details

The hospital/master carpenter's quarters, like most of the earlier buildings on the site, was not an elaborate piece of construction. It is described as a small log building and probably had a shingle, not a sheet metal, roof. Since it had a number of functions (three in 1814) it may have been divided into several rooms.

Little now remains of the structure. The six rectangular and four L-shaped foundation supports were built of roughly faced and squared, dry-laid stones set in trenches. The corner supports were built with special cornerstones. A large, dry-masonry hearth bases with secondary

aprons on its north and south sides is situated near the east inside limit of the structure. The only other feature found in the building is a conoidal cellar pit, 15 by 15 by 4 ft., at its northern end. Remnants of decayed wood found in the bottom of the pit suggest that it was originally lined with split logs and unfinished planks. Although the use of the pit is conjectural, it is possible that it was used to keep food cool, like the cellars in some farmhouses and cottages today. A cellar associated with the hospital proper is similar to this one.

Outside the building a stone walkway, probably abutting a wooden landing or porch attached to the structure, joined it to the main walkway which ran between the eastern end of the bridge crossing the canal and the octagonal blockhouse.

The butt ends of what could be a wooden slat fence were found to the west of the building, between it and the east bank of the canal. This fence may have been erected to keep people from falling into the canal, especially when they approached the bridge at night. This section of fence, found immediately to the south of the eastern bridge abutment, is in a position to guide people to the bridge, either during periods of poor visibility or (since a canteen was located on the east side of the canal) when they had taken a drop too much.

Barracks, Carpenter's Shop and Stable

One, two or even three buildings stood in the area north of the commandant's quarters. On the plan of 1814, a barracks for 80 men¹ was located there. This may have been an early building on the site or one constructed at the beginning of the War of 1812 to accommodate the increased garrison. By 1815, however, a building in approximately the same location and of the same size is described as a "Carpenters Shop, Engineer Department, Log Building."² The same use is assigned to the building in 1823, when it was reported to be in good repair; "a framed building on a stone foundation, clapboarded and shingled, 55 x 30 feet."³ Note that the building is described as being of frame. This may mean that another structure had been erected in the same position, or that Durnford had erred in assuming that the substructure under the clapboards was frame rather than log. Alternatively, the structure may have been framed log or pièce sur pièce.

On the plans of the 1850s, a building with a different shape but in approximately the same location is noted as being a stable with a fenced enclosure at its rear. A carpenter's shop was, however, included among the buildings transferred to the provincial government in 1856,⁴ and this may have been the stable converted into a shop; it seems to be the only location for such a structure. An old wood stable used by the inhabitants of the commandant's quarters is included among the buildings

on the site in 1868, and this seems to refer to the structure now under discussion.⁵ In other words, the structure north of the commandant's quarters seems to have been used intermittently as both a shop and a stable in the 1850s and 1860s.

Structural Details

The crude stone foundation on which the wooden walls of this building rested and the remains of its plank floor were found relatively well preserved. The foundation was built of unworked stones laid with neither mortar or coursing. Fragments of a wooden wall sill were found over the entire upper surface of the footing. Gaps in the south and east walls of the building indicate the location of doorways and conform with the entrances recorded in Durnford's plan of 1823 (Fig. 85). The gap in the masonry of the north wall was filled in with what may have been a door sill measuring .5 ft. wide --if this was not a fragment of the wooden wall sill. In contrast to the other foundation walls, the north one was built of a double row of stones. Why this section is different from the others is not known, but it may have been a later improvement.

The wooden floor, approximately .5 ft. lower than the top of the stone foundation, was constructed of planks .8 ft to 1.2 ft. wide, .1 ft. thick and 12 ft. long. Although these planks were probably nailed to joists, no traces of the latter were found. No hearth or chimney is shown on the 1823 plan of the building, and no indication of how the building was heated was found during excavation.

A small section of a stone walkway uncovered near the northwest corner of the building presumably led to the nearby commandant's quarters.

The Powder Magazine

The magazine appeared first on plans dating from 1814-15 and stood on the site until 1872, when it was sold to a M. St. Amour. Throughout its existence, it was used for the storage of explosives.

Structural History

On the plans of 1814-15, this structure is described as a "magazine stone building." There is no reference to its date of construction; however, it is likely that it was constructed about the same time as the earthworks in 1814.

The position of the magazine (against the earthworks and below the level of the parade square) occasioned many complaints. Such was the case in 1819, when it was described as "a magazine of stone in good repair though damp occasioned by there being no wall to prevent the earth of the batter from laying against one side of the magazine nearly the height of the side wall."¹ The building was still in use, however, since it was "sufficiently occupied with ninety barrels of gun powder, two hundred thousand ball cartridges, and filled cartridges for Garrison and Field service guns."²

The magazine continued to be damp, and, in 1820, an estimate was drawn up to correct the problem. It is not known whether this estimate was approved.

The other [estimate] of the 29th ultimo [September] is to remedy the defects of the powder magazine. As it is, the powder is spoiled in it, the floor being sunk three feet below the level of the fort, the water collects in the area before the door, and if the drain is out of order which is the case at present, the powder magazine is overflowed: besides this inconvenience, the water soaks through the back of the building, it being in part buried in the rampart; to remedy these faults the drain must be repaired in such a manner that it will not easily fill up, and a spout must be carried round the magazine to conduct the water from the roof into it.³

Note that the estimate mentions a drain to take the water away from the small recessed area in front of the magazine.

The magazine was described in 1854 as a "stone building, splinter proof, covered with sheet iron, 29 x 20 feet."⁴ As late as 1854, it still served for the storage of powder, by this time for the provincial government, which used the powder "on the works in progress on the St. Lawrence."⁵ Nevertheless, there still remained "7200 rounds of musked cartridges and a few barrels of loose powder" belonging to the garrison.⁶

Three years later, the magazine was described as "a stone building capable of containing about 300 barrels of gun powder, in good repair except the flooring which is to a small extent faulty."⁷ After ten years in the hands of the provincial government, it was still considered in sufficiently good condition to be used as a magazine.⁸ When A. St. Amour bought the building in 1872, it was described as having "stone walls" and a "tin roof."⁹ St. Amour removed it from the site.

Structural Details

The magazine, as described above, was a stone building with a tin roof and a floor between three and four feet lower than the surface of the parade square. The ramparts rested against its west wall. In front, a recessed area and steps gave access to the doorway.

Before it was built, a pit as large as its outside dimensions was dug into the hard clay. A masonry footing was then laid where the magazine was to be built. On top of this footing, a thick double-faced wall was built of roughly faced and squared, random coursed stones, laid with lime mortar and spalls. The walls forming the antechamber were not built on a footing, nor were they double-faced; moreover, they did not penetrate the clay as deeply as those of the magazine against which they abutted.

The two areas were joined by a doorway on the southeast side of the building. The wooden sill of this was found in situ. Because the sill covered the width of the doorway from jamb to jamb, wooden jambs (if they existed) rested on the sill rather than on the masonry beneath it.

A drain in the northeast corner of the magazine and one in the northwest corner of the entrance area had a common sump outlet. Although the eastern drain led directly into the sump, the western drain was connected to it by what seems to have been a wooden trough. A barrier of small stones in the sump prevented the water in the slightly higher east drain from overflowing into the magazine through its drain. The round conduit which carried the water from the sump through the rampart was probably built of wood and set in a trench dug before the north rampart was built. The historic complaints about the inefficient drainage hold true today. Then and now, the dampness was probably due to a collapsed drain.

The Stone Barracks

The stone barracks was built in 1813-14 to accommodate the garrison of the fort. By 1872 it stood in ruins and was sold for its building materials. It served various purposes, including those of a barracks, hospital and storehouse.

Structural History

The construction of the barracks began in 1813 and was completed (with the exception of the roof (by June 1814.

Having minutely examined the masonry pronounced it perfect and strong -- solid roof completed, covered with sheet iron within eighteen square [?] which remain incomplete for want of that article. -- The building is divided into six rooms, 48 double births in each; one complete -- the whole will be in three weeks fit to receive men.¹

By 1815 the building was completed as planned. It was divided into six rooms² and was to accommodate 288 men. By 1819, however, it had partly collapsed, and the walls and interior required extensive repairs including "pointing of the walls and chimneys outside. Repairing, plastering & whitewashing inside -- the end wall of No. 6 having given way to rebuilt six feet each way."³

With the reduction of the garrison soon after the end of the War of 1812, many of the barracks's rooms must have stood vacant. In 1821, for example, it was suggested that rum should be shifted from the storehouses to "one of the men's barracks rooms...owing to the great insecurity of the place where the spirits are deposited."⁴ Although the building was not completely in use, it was still in good repair in 1823.⁵ By the 1830s, very few of its rooms were occupied. The fort sergeant, who lived in one of them in 1835, complained bitterly of the cold and asked for a larger fuel allowance.

I beg leave most respectfully to submit to your consideration the great inconvenience to which I am subjected from the very small allowance of fuel (half a room) which I am entitled to as Fort Sergeant at this post, and which is quite insufficient to warm the large barrack room 50 feet by 24 feet that I am obliged to occupy, the same having 17 open loop holes for musquetry.⁶

Either the loopholes were left open or, if they were closed, were not plugged very satisfactorily. The sergeant, Scott, also complained that the detachment at the fort occupied a similar room and was given one and one-half rooms' fuel to heat it.

During the Rebellion of 1837-38 the building must have been occupied more fully when the loyal militia and regulars of the British army once again garrisoned the fort in large numbers. Probably extensive repairs put the building in a more habitable state.

The barracks continued to be kept in good repair. In 1842, for example, in accordance with a general directive which went out to all

posts in British North America, the double berths were removed from the barracks. They were probably replaced by single beds.

This estimate provides for taking down the double berths and for the necessary repairs to the floors, walls, and ceilings consequent on their removal. Provision is likewise made for limewashing the walls and ceilings which will be necessary when those berths are removed for destroying the vermin....

Materials:

118 squares 2 coats lime white,
 16 feet cubic hair mortar,
 2 ft. cubic fine stuff,
 200 ft. supl. 2" Pine,
 500 4d row nails.⁷

In 1845, the capacity of the barracks at Coteau-du-Lac was for one officer and 144 men. The reduction from the original total of 288 men resulted from the change to single berths. The officer, however, probably lived in the commandant's quarters.⁸ At this time the barracks was partially occupied as a hospital. In 1843, when a new hospital was proposed for the fort, it was refused on the grounds that four rooms in the barracks had been serving as such, and, with the reduction of the size of the garrison, could continue to fulfill the needs of the fort.⁹

With the abatement of the rebellion scare, the garrison of the fort was once again reduced considerably until 1855-56, when only a barracks sergeant lived on the site as a caretaker. When the property was transferred

to the provincial government, he made a report on the condition of the buildings:

The soldiers barracks is a stone building constructed during the winter of 1814, the roof is splinter proof, covered with sheet iron. This building is low and damp and is greatly out of repair and could not without taking off the roof and raising the side walls be made a healthy dwelling.¹⁰

Ten years later the state of the barracks had declined even further, especially on the interior:

La quatrième bâtisse est la caserne ou casemate. Long édifice en pierres et recouvert en tôle mesurant à peu près cent pieds en longueur sur vingt ou vingt-quatre en largeur. Divisé autrefois sur la profondeur en petites cases qui servaient m'a-t'on dit, de chambres à coucher aux soldats, il n'a aujourd'hui aucune trace de division si ce n'est sur la longueur par des piliers en chêne placés de trois pieds en trois pieds.

Ces piliers en chêne sont encore assez bons. Ce qui reste du placher de bas de cet édifice est presque tout pourri....Ici et là dans cette bâtisse, il y a des amas de pierres provenant de l'éboulement des cheminées ou des murs de division et même des murs du corps de la bâtisse. J'ai aussi remarqué deux ou trois breches dans les murs de cette bâtisse. Ces breches m'ont semblé avoir été produites par le temps. Enfin je n'ai vue de bon dans ce vieux bâtiment

que la pierre des murs et la tôle de la toiture. Il y a par ci par là de vieilles portes et de vieux contrevents placés le long du mur à l'extérieur de cette bâtisse.¹¹

By 1871, the old barracks was falling to pieces and the only material considered salvagable was the sheet metal covering the roof. The building was sold with other structures at a government auction in 1872. It was divided in half for the sale; each half was described as having "stone walls, heavy timber roof, covered with sheet iron."¹² Both halves were purchased by a Mr. Dufour, who removed the materials from the fort.

Structural Details

The walls of the barracks were built in stone. The rifle slits, windows and doors were placed as marked in Durnford's 1823 plan (Fig. 92). Apparently there were shutters on the windows. The roof was bombproof; it was built of heavy timber and covered with sheet metal.

The interior was divided into six rooms, each designed to accommodate 48 men in double berths. A row of oak posts, 5 ft. apart, ran down the centre of the building from end to end as support for the roof. Three large hearths, each with two back-to-back fireplaces, heated the rooms. The interior walls and ceilings were plastered and whitewashed.

Only three wall stones, the masonry foundations and three hearth bases were uncovered during excavation. The wall stones, found to the west of the north hearth base, provide sufficient data for one to infer that the wall was built of a double row of roughly faced and squared stones laid with lime mortar and spalls on a rough masonry foundation. At the

north end of the building, however, a foundation was unnecessary because of the high level of the bedrock on which the wall was built. In contrast to the wall, the foundation and hearth bases were built of unworked dry-laid stones, packed well into a trench dug into the native clay.

There were a few unworked slabs of stone on top of the bearing foundation wall in the centre of the building. Although they are not spaced three feet apart like the documented row of oak posts, they may have served as footings for them. Three of these stones are clearly visible at the north end of the building, where they are set directly on bedrock. Fragments of a timber located on top of the centre bearing foundation at the north end of the building are probably sections of a sill used to support the joists and the floor. The floor was made of tongue-and-grooved planks, .05 ft. thick.

The use of the east-west dry masonry feature located at the north end of the building is unknown. Possibly it was a foundation which may have supported a later wall, which could have separated the northern end of the building and formed a room with two (rather than one) fireplaces.

Only fragments of the southern hearth itself were found in situ: two well squared and faced, but broken, front hearth stones. A few fire-cracked reddish stones of the back hearth were found on the south side.

The east side of the building was flanked by a cracked stone walkway and a stone-lined drain sloping to the south to carry away the run-off rainwater from the barrack roof. In the area immediately in front of the entrances to the barracks, separate pathways were built of stones larger than those used in the walkway itself. A section of another

walkway was found near the southwest corner of the building and another more important one, leading from the fort entrance, is located in the area of the northwest corner of the building.

Near the southern hearth base there is a masonry ridge protruding from the bottom west side of the centre foundation wall. The use of this feature is unknown, but it would seem reasonable that, because the ridge was located below the level of the clay, it was either an attempt at building a footing or merely an error in construction.

Commissariat Officer's Quarters/Church

Early in 1816, permission was granted for the construction of the commissariat officer's quarters. The building was used as a combination commissariat officer's quarters and office until sometime in the 1820s, when it became a barrack master's office. In 1834, the building was leased to the local Anglican congregation and served as a church until the 1860s. In 1870 the building was destroyed by fire.

Structural History

In 1815, correspondence from Coteau-du-Lac complained of the "want of a building at the post...for a Commissariat office and quarters"¹ to replace the existing rented accommodation. In the following year, approval was given for the construction of the required building.²

The building was still inhabited in 1823 when it was reported "in tolerable repair." It was described as a "framed Building filled in with logs on a stone foundation, clapboarded, shingled, painted; 35 feet 6 inches x 29 feet 6 inches."³ At about this time the building was taken over by the barracks master, who used it as an office.⁴ As the fort declined in importance and the garrison was reduced, the commissariat officer seems to have been one of the first to be considered unnecessary.

In 1833 the Anglican congregation of the town of Coteau-du-Lac petitioned the imperial authorities for the use of the building as a

church. An Anglican minister had been in Coteau since 1829, but there were too few communicants to raise the money necessary to build a proper church.

We the undersigned Inhabitants of Coteau du Lac in the Province of Lower Canada beg leave to represent that a Clergyman of the Established Church of England having been stationed here since the year 1829 -- We are aware that it is expected of the congregation to provide a place of Divine Worship. The expectation we acknowledge to be right and reasonable and accordingly a meeting of the principal member of the congregation was held some time ago with the view of ascertaining what means there were of accomplishing the object, but the number of Protestants in this neighbourhood being comparatively small, it was found that a sum of money sufficient for the purpose could not be collected -- We therefore venture to make this application to your Excellency for a Government Building, which is adjacent to the Burial ground, formerly occupied as a Commissariat Quarter, but which has become greatly out of repair.

This building if it were granted to us we would engage to put into repair and fit up as a place of worship.⁵

The Anglicans may have already been using the building as a church for some time.⁶

Because the building was located on the glacis of the fort, the military authorities were reluctant to allow civilians to become established there, but the Anglicans were given permission to take over the building on condition that they vacate it immediately in the event of

war.⁷ The Board of Ordnance gave them the building at the nominal rent of one dollar per annum.⁸

The congregation, on its part, planned to "convert the interior into a form more appropriate to divine service,"⁹ and, having accepted the board's terms, probably proceeded with its plans. The worthy members, not content with their miniscule rent, went one step further to gain official patronage. Shortly after moving into the church, they wrote Major Airey asking for funds.

Two pews have been set apart free of rent for the military at the post whilst all the others have been rented for the support of the minister and as it has been customary we believe in garrisons where no military chaplain officiated to afford some assistance on the part of the crown....¹⁰

Their efforts were of no avail; the commanding officer reported that no funds were then available.

Even after the congregation grew large enough to build its own church, the converted building continued to serve as a burial chapel. When the fort was transferred to the provincial government in 1856, the building, still used as a burial chapel, was described as follows:

Commissariat quarters is a wooden building occupied as a church by the Episcopal congregation of the parish and used by them in conducting funeral services, the Graveyard being contiguous; its occupation by them is authorize by the Board of Ordnance, on annual rent of 4/2 sterling being paid by them, which I have received and paid over to the storekeeper up to 5th Nov. 1856.¹²

Within 10 years, however, the church was abandoned, and in 1867 the Reverend Mr. Young requested permission to remove the seats.¹⁵

In 1868, the tenant of the fort, Georges Beaudet, was charged with allowing the fort and its buildings to fall into ruins.¹⁷ The government sent a special agent to investigate the charges against Beaudet. His report largely absolved the tenant of the accusations.

La première bâtisse observée sur mon passage est l'ancienne chapelle protestante. A bien examiner cet édifice, la première idée qui frappe c'est que la main du temps plus que celle de l'homme a amené son délabrement. Cependant, on voit que le lambris du dehors a été arraché par une main moins lente que celle du Temps....Mais il faut aussi dire qu'il appert que lors de la prise de possession du Fort par Mr. Beaudet cette chapelle était déjà dans un état de délabrement mis avancé et que pour en faire quelque chose d'habitable il lui aurait fallu quasiment refaire une nouve. En outre, je me suis assuré par la visite de cette chapelle que ses fondations en pierres s'écroulent d'elles mêmes de vétuste et que le corps de la bâtisse, érigé pièce sur pièce, est entièrement pourri, surtout depuis le bas des fenêtres, jusqu'au faite. L'état de vétuste de cette chapelle doit exister depuis au moins sept ou huit ans; Ce qui pourrait avoir empêché M. Beaudet d'y faire des réparations depuis qu'il en est en possession. Cependant on voit par plusieurs témoignages que les châssis de cet édifice -- les châssis au moins si non les vitres --

auraient pu être plus protégés par M. Beaudet.¹⁵

In 1870 "la vieille bâtisse autrefois désignée chapelle protestante" and the commanding officer's quarters¹⁶ were destroyed by fire, and the remains of the structures were sold to M. Dufour in the auction of 1872.

Structural Details

The commissariat officer's quarters/church was the only building on the site definitely known to have been constructed pièce sur pièce or "filled with logs." This was an early form of architecture common in the area. Vertical posts were placed at intervals, and the intervening spaces were filled with logs fitted horizontally. At some time during its existence the exterior was covered with clapboards. The roof was shingled. The structure itself was one and one-half storeys high and appears to have had at least a crawl space, if not a basement, underneath. In front, a verandah ran the full length of the building.

The cellar, two hearth bases and the building foundation are all that remain of the building. The walls forming the cellar were built of relatively large, roughly worked stones, joined with lime mortar and spalls. The low, uneven height of these walls strongly suggests that much of them was removed when the building was purchased in 1872. The west side of the rectangular hearth base in the cellar is built of the same type of stone used in the cellar walls, and the other three sides are dry walls of unworked rubble. In contrast to the other corners in the cellar, no masonry was found at the point where the northern and eastern walls should form a corner. This could be due to the fact that stone was removed, either in 1872 or later.

A few bricks, which probably formed part of the chimney, were found near the hearth base. The unbroken bricks measures .8 x .3 x .2 ft.; other bricks, which appear to be cut, measure .4 x .3 x .2 ft. The floor inside the cellar was covered with a layer of small stones and mortar. This mortar could have been a crude floor, or it may have fallen when the stones forming the upper part of the cellar walls were removed.

The section of the masonry foundation which is a continuation of the wall forming the west side of the cellar is built with unworked stones laid without mortar or spalls. This wall, as can be seen in plans of the building, was built in two sections joined by one stone. The foundation was probably constructed by throwing unworked stones into a trench cut into the solid clay. The base of the northern segment of the foundation is higher than the others. This could be attributed to some difficulty in digging the foundation trench.

In the approximate centre of the structure is what appears to be another hearth bases. In contrast to the cellar hearth base, it was formed of unworked stones laid without mortar or spalls. Because this hearth bases does not appear on the plan of 1823, we can infer that the base was added later, possibly to support an iron stove which would provide the church's congregation with more heat. Several unworked stones forming a low footing on the east side of the structure were probably associated with the verandah.

Although Durnford's drawing of the building shows the foundations protruding above ground level, no masonry was found at this level. This may, of course, be due to the removal of the upper part of the foundation after the building burned and was sold. The only indication of fire,

however, was a few small pieces of charred wood found in the cellar and a section of charred floor located near the southeast corner of the verandah.

The Bridge

There was a bridge over the canal from the time of the latter's construction in 1780. Originally, the bridge seems to have been a stationary one with a masonry arch which was replaced in the 1820s by a "flying" or "drawbridge." The plans of the 1850s show a drawbridge.

Structural History

The early of Coteau-du-Lac (1814-15) do not describe the type of bridge crossing the canal; all they indicate is that a bridge was there. The Woolford sketch of 1823 (Fig. 7), however, depicts a bridge with a substantial arch, probably built in masonry but possibly of wood. Although the artist has taken many liberties in his representation of the fort, these seem to have been confined mainly to proportion, for buildings such as the north blockhouse appear to substantially correct in detail, except for the distortion in their size. Therefore his portrayal of the bridge may also be basically correct.

The existence of an arched stationary bridge is also indirectly supported by documentation. At the Cascades, where the post and canal were built shortly after those at Coteau-du-Lac, the bridge was probably similar. Moreover, repairs were usually undertaken at both posts at the same time, thereby maintaining the similarity. In 1816, when it was suggested that the canal at the Cascades be widened, it was reported

that "the principal expense will be four new sluice gates and widening the bridge over the canal, the arch of which is now only twelve feet."¹

Furthermore, in the 1820s the overseer in charge of the locks at Coteau asked that "a beam crossing the locks to separate the gate posts" be removed, arguing that the boatmen were forced to unstep the masts of their boats in order to pass through, and to avoid having to do so would rather "sail up the rampids."² This request was repeated each year but was repeatedly rejected by the superintendent of canals. The superintendent argued that the expense of removing the braces and installing drawbridges would be unwise in view of the need to increase the size of the outdated canal. If and when the canal was widened, that would be the logical time for such a step.

Would it not therefore be an useless expenditure to be improving upon old works, making new gates, bracing them from the sides and making flying or drawbridges, when perhaps in a short time it might be considered necessary to facilitate the general commerce and intercourse of these colonies to increase the size of the canals in accordance with other improvements which might take place upon the navigation of the St. Lawrence.³

In August 1828, however, the superintendent was overruled, and the beams were ordered removed.⁴ It is likely that the bridge was then replaced; if the stationary bridge had been retained, the batteau men would still need to unstep their masts to run through the canal unimpeded. In September 1850, there is a reference in the accounts to "repairing drawbridge" when general repairs were undertaken on the canal

at Coteau-du-Lac;⁵ however, in a plan showing sections of the canal in 1851, a curious arched stationary bridge is depicted, although this may have been included only to indicate that a bridge was there, rather than to show it in exact detail.

In 1838, Captain Goerge Bell "erected four batteries and a drawbridge," but this may refer to the construction of a bridge over the ditch.⁶ In plans of 1850 and 1857, however, the bridge over the canal is shown as a drawbridge.

Structural Details

Little remains of the bridge, so it is difficult to contribute much more information than that supplied by the various plans of the canal. Field investigation did, however, indicate that, if the bridge were a drawbridge, it probably would have hinged on the masonry abutment on the west side of the canal. One puzzling feature was noted: two round fragments of wood on either side of the western abutment. But after locating the 1850 plan of the canal, which shows a stairway on either side of the abutment, it was inferred that the wood formed the base of the two stairways which made it possible to walk the length of the canal. The use of a slotted masonry feature to the north of the western abutment is, however, not apparent. It may have played a part in the raising and lowering of the bridge. On the east side of the canal, the flat surface of the masonry abutment seems designed to receive the edge of a drawbridge, but the use of the two crudely built dry masonry features to the north and south of this abutment is undetermined.

Guardhouse

The guardhouse was constructed in 1815 to replace an earlier structure located slightly to the northwest. After 1820, when only a small garrison was kept at the fort, the guardhouse was little used. In the 1860s one of the millowner's workmen lived there. It was sold with the other buildings in 1872.

Structural History

in 1814 a "temporary guard house"¹ was located near the earlier entrance. A report of that year included a new guardhouse which remained to be built.² By 1815 it was complete, and was described as "main Guard, Log Building, 1 Officers and Men's Room; & five Cells."³ In 1819 one of the repairs required at the fort was the pointing and whitewashing of the interior of the guardhouse.⁴ In 1823 it was described as a "log building on a stone foundation containing 2 guard rooms and 5 solitary cells. Splinter proof and covered with sheet tin, 32 x 26 feet; in good repair."⁵

After this date, the guardhouse was little used. In 1857 it was described as "Guard House containing lock-up and six cells" and needed a "good deal of repair."⁶ Ten years later it seems to have been in better condition, because it was inhabited by one of Beaudet's workmen. "La sixième bâtisse visitée est la black hole. Habitée par un des hommes de

M. Beaudet, cette maison, au dehors comme au dedans me semble assez bien tenue."⁷

In 1872 the building described as "the old lock-up or prison, stone walls, sheet iron roof" was sold to Dr. Daught (?).⁸ Although in 1872 it was said to have stone walls, the other descriptions are definite in stating that it was a log building (or a frame building on plan) resting on a stone foundation. There was a fireplace near the centre of the building.

Structural Details

The few remains of the guardhouse show that its masonry foundation was built of a single course of roughly faced stones bonded by mortar and spalls and laid on bedrock. Where there is a dip in the bedrock, the foundation was laid on a thin layer of earth. Although the south and west sections of the foundation are nearly complete, much of the north section has been disturbed or removed. The east foundation was defined only by a section of masonry at its south end, where a complete foundation was not necessary because the bedrock rises high enough to replace it. Here the squared logs which formed the walls were probably laid directly on bedrock and levelled with a few small spalls. The base course of the squared logs at the northwest and southwest corners of the structure is sufficiently complete to conclude that the corners were formed by overlapping notched logs.

A rectangular mortar stain on the bedrock within the limits of the building is all that remains of the masonry hearth base demolished in 1872 or later. Although nothing remains of the floor, it was probably

level with the top of the foundation walls. It is not know, however, whether the floor was of wood or packed earth. Nothing was uncovered to indicate the limits of the "2 guardrooms and 5 solitary cells" in the building.

A narrow split stone walkway connects the building to the major walkway within the fort. As shown on the plan, the shape of this walk is asymmetrical.

Bake House and Cooking House

Bake House

The bake house appears on plans for the first time in 1815. In the years immediately after its construction, it served as the garrison bakery. When the garrison was reduced to a few men in the 1820s, there would have been little use for the bakery, and it is likely that the building was abandoned. By the 1850s it was dilapidated.

Structural History

The bake house does not appear on the 1814 plan, and in June of that year a bake house was included among the buildings needed to complete the fort.¹ In 1815 it is described as "Bake house for the Garrison, Log Building."²

Although it was finished in 1815, by 1819 part of the building had already collapsed and the rest of the structure needed extensive maintenance. An estimate called for "painting, plastering, whitewashing inside, the floor to be repaired, the back wall having fallen down to be rebuilt thirty-six feet."³ The wall that collapsed was probably the masonry foundation wall which compensated for the slope of the hill, the bake house being constructed on the incline. Approval for the work was given and it was carried out.⁴

In 1823 the building, "in good repair," was described as a "log

building on a stone foundation, covered with tin, and having dimensions of 36 x 23 feet."⁵ By the 1820s, the bake house was used infrequently. The small caretaker garrison stationed at the fort would in all likelihood be allowed to use the facilities of the commanding officer's quarters or, if necessary, the bake house. Later, a contractor who probably used his own facilities supplied bakery goods at regular intervals.

By 1857 the bake house was in ruins. When the fort was transferred to the provincial government, the building was described as follows: "The bakehouse is also of wood with two ovens falling to pieces."⁶ Ten years later, the lessee of the fort, George Beudet, asked permission to purchase "une vieille bâtisse qui s'y trouve située du côté sud du canal et qui manace de s'écrouler."⁷ This would seem to have been the bake house, for it was the only building then standing on the peninsula and was near Beudet's sawmill.

In the following year (1868) the state of the building was described in a general report: "La dixième bâtisse du fort est la Boulangerie. Cette autre construction s'en va aussi en ruine. Il y aurait cependant de bon encore quelques pièces du bois, la pierre et la tôle du toit."⁸

Structural Details

The bake house was built of logs, probably squared, which rested on a masonry foundation built in a shallow depression excavated into the side of a slope. Its double-faced masonry foundation walls were built of somewhat squared and coursed stones joined with a generous quantity of lime mortar and spalls. Because it was built on sloping ground, the overall height of the building foundation increased on the north side

of the structure. This slope could have contributed to the collapse of the original north foundation wall built on top of the dry masonry scarp securing the earthworks. The base of the north foundation wall was, however, found largely intact, except where it forms a corner with the east and west foundation walls. The collapse of the corners may have occurred at the same time as the collapse of the north foundation wall or after the bake house was abandoned. After the auction of 1872, most of the stone from the rebuilt north wall was quarried from its eastern limits.

The first course of the masonry oven base was built with well squared and mortared stone laid on a footing of .5 by .05 ft. wooden planks and filled with well mortared stone rubble. The east wall of the oven was, however, formed completely of faced stones. After the base was built, the area around it was filled with a mixture of clay, dirt and stones. The ovens proper were probably built of stone or clay, since no brick was recovered during excavation. Although no remains of a floor were found, it probably consisted of planks laid on the dirt fill.

Outside the building, a narrow stone walkway was laid in front of the entrance. A small stone step located below the window to the west of the doorway may have provided access to the bakery window, which could have been used to distribute baked goods. No use is known for the posthole near the northeast corner of the building. A line of stones at the northwest corner of the structure, at the same level as the bottom of the oven base and the top of the masonry scarp, may belong to a feature which antedates the bake house.

The Cooking House

This building first appears on plans in 1815, when it is described as a "Cook House for 6 Rooms of No. 10 Barracks, a Boiler for each Room."¹ It served for preparing the daily meals of the garrison and, perhaps, for heating water for their laundry. As the number of men stationed at Coteau-du-Lac decreased, the cooking house was used less and less frequently until the 1850s, when it was used only for odd jobs (such as slaughtering) and washing. In 1872 it was in ruins and was sold at auction.

Structural History

The cooking house does not appear on the plan of the fort in 1814, but in June of that year "two cooking houses and bakehouse"² were included among the buildings remaining to be constructed. By 1815 the building was shown as complete. In 1819 "the men's kitchen" was "pointed and whitewashed inside."³ In 1823, still in good repair, it was described as a "log building, covered with sheet iron and painted."⁴ Its dimensions were 24 by 19 ft.

When the fort was transferred to the provincial government, the cooking house was described as being "a wood building" in good repair.⁵ Once in the possession of the colonial government, the cooking house was used infrequently and rapidly fell into ruin. Ten years later, in 1868, it was described as follows:

La cinquième bâtisse est aussi un bâtiment en ruine. On l'appelle encore le mess house. On s'en sert occasionnellement pour y faire boucherie ou les grands lavages. Il y a

encore là usée espèce de cheminée, aussi s'en allant en ruine. Là encore, je n'ai vu de bon que la pierre et la tôle du toit.⁶

"The cook house with contents" was purchased by Joseph Martin in 1872, when the extant buildings on the site were sold.⁷

Structural Details

The cooking house was built of logs on a masonry foundation. A pit was excavated and a large, rectangular masonry base built to support the hearth, six cooking boilers and a chimney. The limits of the base were formed with fairly well faced and squared stones joined by lime mortar and spalls; the core consisted of stone rubble set in mortar. The foundation walls were also built of worked stone of varying sizes and spalls. Although mortar was not always present, this may be due to quarrying activities and weathering. The foundation walls were usually double-faced at least two courses high, but occasionally single-base stones wide enough the span the width of the double-faced walls were used.

Not enough remains of the log walls to determine if they were squared. Although no indication of a floor was found, the height of the even base suggests that, if the floor was wood, it was level with the top of the foundation walls. The few stones found on the north side of the structure may represent a walkway connecting the cooking house to the large barracks.

Quarrying activities are responsible for the incomplete foundation walls and hearth base. Although a few brick fragments were recovered, it is not certain whether they came from the chimney or from the hearth itself.

Barracks Store

The barracks store (gun shed, Ordnance storehouse) was constructed in the late 1820s to replace the buildings by the canal which were falling into ruin. It was first used for the storage of Ordnance supplies, and later for barracks materials. As the garrison diminished in size, it was used less frequently. In the 1850s it was vacant, and was sold with the other extant buildings in 1872.

Structural History

The gun shed first appears on the plans of the 1830s. In 1826, the following entry appears in the estimates for 1837: "Item 17 is for a gun shed & appears necessary; the expense of which may possibly be nearly defrayed by the sale of the old buildings as recommended by the committee."¹ Because this probably refers to the building in question, it was, therefore constructed to serve as a gun shed. As the garrison decreased in size, the building was used for various purposes. In 1857 it was described as a "Barrack store originally a gun shed, a frame building in good repair."² Ten years later, a wooden storehouse in good condition, with a brick chimney, was included in an inventory of the buildings on the site.³

In 1872, the building, then described as a "storehouse, brick chimney attached," was purchased and demolished by Georges Beaudet.⁴

Structural Details

The auction notice of 1872 which states that the barracks store was sold strongly indicates that all serviceable building material was carted away by the purchaser. Enough remains of the building, however, to infer how the foundation and floor were built.

The area chosen as the construction site was altered slightly for the proposed location of the masonry base of the brick chimney. Here a pit was dug to bedrock and a 1.5-ft.-high base was built with well squared by roughly faced stones, bonded together with spalls and lime mortar. This base is abutted by the south foundation wall, built at ground level with two courses of roughly faced stone and little mortar. A section of the walkway extending from the entrance of the fort to the bridge crossing the canal served as the foundation for the southwest corner of the later building. The only other solid masonry section of the foundation is on the east side of the structure. The rest of the wall foundations consist of single unworked slabs of stone. Wooden wall sills were placed on the foundation. The building had a plank floor set on 14 joists which averaged .06 ft. wide and .10 ft. thick. These joists, oriented east to west, were placed on a series of single slabs of unworked stone (as in the case of the wall sills), spaced about 3 ft. apart. Nothing remains of the floor itself.

It is not known if the walls of the structure were of logs or clapboard or what the roofing material was. It may be inferred, however, that the entrance was located near the southwest corner of the building where the walkway leading from the fort's entrance is located. This would have provided easy access to the structure.

Gun Platforms

The location of gun platforms dating from the American Revolution are unknown. The remains uncovered in the field date either from the War of 1812 or from the Rebellion of 1837-38.

When the defenses of the fort were shaped during the War of 1812, a number of gun positions were added to defend the river passage and the fort. The "water batteries," those in the cloverleaf bastion and the one beside the upriver entrance to the canal, were completed by 1 June 1814. "Four 18 pdrs" were mounted on "traversing carriages" and fired en barbette (over the parapet).¹ In 1815-16 they were reported to be 24 pounders, apparently on traversing platforms.²

On the land front, there were two types of ordnance. For the defence of the ditch, 12 pounder guns were mounted on raised platforms and fired through embrasures.³ On the 1815-16 plan (Fig. 6) at least one is indicated as a carronade, although all are listed as 12 pounders. The main land defence was three 18 pounders, one mounted at each angle of the fort, apparently on traversing platforms, and firing en barbette. On the plan of 1815-16 the gun at the southwest angle of the fort was a 24 pounder.

All the batteries in the 1812-14 period were mounted on traversing carriages or platforms. These could be of various types. Judging from the plan view of the platforms, the 12 pounders or carronades defending the ditch moved only forward and backward along a straight line. The other guns, however, could move on semi-circular racers as well. This provided almost 180° of fire. Traversing carriages of this sort required a racer and a pivot on which to turn. The pivot might be positioned in

the front, middle or rear. In each case, the racer was located at the opposite end of the platform or, in the case of the centre pivot, at front and rear. The plan of 1815-16 (Fig. 6) suggests that the 12 pounder positions were equipped with a front pivot and rear racer. Probably the water battery had the same.

Following the war, the ordnance and platforms probably fell into ruin. At the outbreak of the rebellion, the local militia occupied the fort and threw the existing guns and shot into the rapids "to prevent their falling into the hands of a rebel party which was organizing in that neighbourhood."⁴

Captain Bell, who took charge of the fort early in January 1833, immediately made plans for raising the cannon. At first Bell recovered two, which he mounted, "having made platforms for the carriages of the strongest material."⁵ The platforms apparently were indeed substantial:

Captain S---- was again sent up to examine and report upon my works. He returned perfectly satisfied, and reported my platforms unexceptionable, guns well mounted, and skillfully unspired. I fired several shots from these guns up and down the river to try the effect and strength of the platforms, and to calculate the distance at which I could knock down a house, and to let the good people know that I was well prepared in the even of any future disturbance.⁶

During the winter Bell recovered more guns:

I recovered twelve more twenty-four pounders in the middle of the winter, erected a sawpit in the forest, cut down my timber, finished more platforms, erected four batteries and

a drawbridge, and made myself secure against any enemy.⁷

The type, position and number of platforms which Bell erected are not known. They were most likely simple in construction and may have been only plank ground platforms. Bell probably placed them in the 1812-14 positions because these locations would be suited to the installation of guns and would be tactically sound.

Structural Detail

The best preserved gun platform excavated at Coteau-du-Lac is southeast of the hospital/master carpenter's quarters. This platform was built of a series of planks .8 to 1 ft. wide by .15 to .10 ft. thick, placed in a north-south direction. A series of east-west depressions in the platform mark the location of the sleepers to which the planks were nailed. The sleepers have rotted and have caused to platform planks above them to sink.

A series of square-headed nails form a definite arc near the front of the platform. The nails anchored a cannon racer to the platform in much the same way that a spike fastens a rail to a railway tie. A pivot was not found during excavation, possibly as a result of the salvaging which levelled the fort after it was abandoned. The use of the wooden pegs associated with the platform is not known; possibly they were used instead of nails to hold the front end of the platform to a sleeper.

The gun platform north of the powder magazine is the most incomplete of the four excavated. It was built of wooden planks of indeterminate size, round-headed nails and wooden pegs (.4 ft. long by .06 to .10 ft. in diameter). At a point 1.1 ft. above the level of the platform, some

fragments and more pegs were found, but their use is unknown. They may, however, be what remains of a later platform built under George Bell's direction in 1836. A cannonball was found in the north corner of the earlier platform.

The gun platform occupying a similar position in the earthworks east of the platform described above is better preserved. This platform is built of a series of planks .37 to .42 ft. wide by .07 ft. thick, nailed to east-west sleepers .60 ft. wide by .15 ft. thick. In this case the nails are both square- and round-headed, and although large sections of the sleepers are still intact, there are depressions in the platform where they are or, in the case of rotted ones, were located.

The shape of this platform and the one described above, as well as their location, strongly suggest that the cannon were front mounted with a racer to the rear. Although nothing was found of the pivot or racer, these were probably also salvaged when the fort was abandoned.

Another gun platform associated with the earthworks was uncovered south of the last two platforms. This platform also bore a series of depressions where the sleepers were located. In this case, the nails were both round- and square-headed, like those in the last-mentioned platform. Wooden pegs scattered irregularly were uncovered, but none was in situ. They were of varying dimensions, from .05 to .17 ft. in diameter and from .27 to .45 ft. long. This platform also suggests a front rather than a rear mounted cannon because of its shape and location, but once again nothing was found to give categorical support to this assertion.

During attempts to find the earliest recorded entrance into the for, the remains of a gun platform were uncovered in the area of the guardhouse. The walls were built on bedrock of roughly faced and squared stones, dry-laid with spalls. The area immediately behind these walls was filled exclusively with dirt and its sloping surface was at least partially floored with planks. The dirt probably absorbed and distributed the shock of firing the gun, and the plank flooring provided a surface on which it could easily be moved.

The sides of the platform abut the dry masonry retaining wall built against the inside of the earthworks on either side of it. This retaining wall was constructed like the others described above. The earthworks which it held in position were built of fill, probably obtained from the excavation of the ditch fronting them. A few pieces of badly decomposed wood were found on the earthworks in front of the platform. Little can be said about their original position, but they may have been from an extension of the gun platform or from the wood lining of the embrasure.

Engineer's Quarters and Barrack Master's Quarters

Engineer's Quarters

The "Engineers Quarters" appears on plans for the first time in 1815 (see Fig. 27) and stood until the 1830s. It first accommodated engineer officers but, by the 1820s, was no longer used.

Structural History

As late as the fall of 1815 there was no special accommodation for the engineers directing the construction of the fort, and permission was requested to purchase a private building which stood on government property.¹ Buildings belonging to private individuals were located in the area near the Delisle River which was later appropriated when the fort was expanded in 1813-14. When the engineer's quarters appears on the plan of 1815, it is described as a "deal building." During the construction period, the officers of the Royal Engineers occupied the building, but as soon as the expansion of the fort and the canal were completed, officers of that regiment were no longer stationed permanently at the site. By 1823, although the building was still standing, it was unoccupied and described as

Quarters formerly occupied by an officer of Engineers.

Framed building on a stone foundation 26 x 13 feet with

a passage and kitchen in rear. Clapboarded and shingled;
in bad repair.

Required: new shingling and sundry trifling repairs
to the interior.²

On a plan of 1834, it is described as "Engineer Dept. Condemned Quarter."³
It does not appear on subsequent plans.

Structural Detail

Because the engineer's quarters was located outside park property, it was not excavated. From documents, however, it can be ascertained that it was a simple wooden building, framed and covered with clapboards (deals), resting on a stone foundation. A basement under the main part of the building was reached by a doorway on the lower level. To the rear was a lean-to kitchen entered either from the main part of the building or by a passage along the rear. This kitchen and the main part of the house shared a chimney.

Barrack Master's Quarters

Structural History

The barrack master's quarters appears on plans for the first time in 1815 (see Fig. 27), when it is described as "the Barracks Masters Quarters, Log Building." It is not marked on the 1823 plan, but its omission seems to have been a mistake on Durnford's part, because the building is shown on a plan of 1834, where it is described as having been "built by the former Barrack Master" (probably Henry Evatt or William Cleghorne). It no longer appears on plans in the 1850s.

Structural Details

Test trenches to find the barrack master's quarters revealed two low rectangular masonry features and several long, narrow, shallow soil stains. The masonry feature to the north was built of three to four courses of roughly faced stone bonded with lime mortar and spalls on its north side. The remaining three sides and the core, however, were built of relatively unworked stone. A shallow, narrow east-west depression is located in the centre of the base. It is not known what this depression represents; possibly two fireplaces shared the same base but heated separate rooms divided by a partition. Alternatively, the depression may indicate the point at which the hearth and chimney were joined.

The outside limits of the other masonry feature were built of three courses of unworked stone bonded by lime mortar and the core was filled with tightly-packed stone rubble set in mortar. This bases could have supported another hearth and chimney or a free-standing iron stove.

No other structural features were located, and only a few artifacts were recovered. Probably the building was abandoned and torn down, and all of its contents and hardware were carried away.

Ox Stable/Commissariat Barn, Storehouse and Stables

Ox Stable/Commissariat Barn

This building, first listed on the plan of 1814 (Fig. 26), is described as the "barn for the oxen of the Engr. Dept." It faced the interior of a large fenced enclosure which ran to the Delisle River. This was the corral for the oxen which were used for hauling in the construction work. In 1815, still in use as a stable, it was described as a "Log Building."¹

By the following year, the construction was completed and the oxen were sold. The vacant building was transferred to the Barracks department for storing the straw used in the garrison's mattress ticks; considerable quantities of straw had to be available for use throughout the year.² By 1819, the barn, which was definitely in use as a straw store, was reroofed and the walls and door were repaired.³ In spite of these repairs, the "Commissariat barn" was in such a poor state by 1823 that it was not considered worth repairing. It was described as a "framed building, clapboarded and shingled, 33 x 21 feet."⁴ The discrepancy between the log building reported in 1815 and the framed and clapboarded building of 1823 might be due to clapboard sheathing covering an original log structure; possibly the barn was constructed of framed logs.

The barn does not appear on the plan of 1834 nor on subsequent plans. Because it lies outside park property, no field investigation was made of it.

Commissariat Storehouse and Stables

Structural History

In June 1814, it was reported that temporary stables for 20 horses and a forage store would be completed in eight days.¹ By 1815, the building appears on plans. It was described as a "commissarys Store, 1 Storey; Stables and Store Room will contain 19 Horses."² The building was still standing in 1823, when it was described as a "framed building, clapboarded and shingled, on stone foundation, 30 x 40 feet, having two wings, 15 x 4 [sic] feet."³ The building was in poor condition, however, and, according to Durnford, was "not worth repairing."

The commissariat storehouse and stable must have been disposed of soon after this date, for the building is not shown on plans of the 1830s and 1850s.

Structural Details

The storehouse-stable was a framed wooden building on a masonry foundation. The store for forage (hay and straw) was 30 by 40 ft. and formed the central core. It was one-storeyed with a loft and had a row of posts running down its centre. The stables were lean-to shacks, one against either end and one against the back wall of the building.

Judging from its short life, the building does not seem to have been of solid construction. An attempt was made to find its foundation, but nothing was uncovered, possibly because of excessive erosion in the area.

The Sawmill

In 1866-67 the fort and canal were leased to Georges Beaudet, a local millowner, who built a sawmill which straddled the north end of the canal and used the drop in the water level to work a saw. The mill continued in operation well into the 1880s and was still standing on the side as late as the 1890s. It is not known exactly when the mill was removed, but it was probably in the 1890s, since the grounds were then given to the Department of Railways and Canals in connection with the construction of the nearby Soulanges Canal.

Structural History

In 1857 the province, in an attempt to evaluate the property which it had received from the imperial government, dispatched an engineer to Coteau-du-Lac to determine the number of mill sites which it could accommodate. In an optimistic survey, G.F. Baillargé suggested possible sites on the point, canal and ditch.¹ It was not until Georges Beaudet leased the site in 1867, however, that the practicability of establishing even one sawmill was tested. Beaudet had built his mill on the canal by the following year. It was described as follows:

La onzième et dernière bâtisse visitée dans le fort c'est la moulin à scie qu'a fait contruire M. Beaudet. Ce moulin est en bon ordre. M. Beaudet a fait réparer le mur sous le

moulin. Il a fair réparer l'empellement de la chausée.

Ces deux réparations lui ont fait déboursier al delà \$45.²

One of the provisions for the lease was that Beudet was to leave behind any structure which he had built on the site during his tenure. At the termination of the lease, however, Beudet could request an extension to allow him time to remove equipment (although since the lease was renewed each time the removal was never necessary). Frequently structural information about his mill would be included in his letters. In 1870 he wrote:

J'ai bâti sur le pouvoir d'eau s'y trouve un moulin à scie que j'emploie presque exclusivement à scier du bois pour les habitants des environs ceux-ci rendent leurs billets au moulin l'hiver. Comme il n'a a pas moyen de les scier durant cette saison ici que frasié empêche presque continuellement la marche du mécanisme, il faut attendre pour cela le printemps cette perte je ne puis donc la réparer qu'à ce temps et durant l'été. Si le Government ne refuse la favari que je sollicite en pyant le loyer acoutume, je me trouverai forcé de refuser le bois que l'on doit amener l'hiver, et par suite aubir un dommage assez considérable.³

Beudet wrote again in the following spring, this time requesting that he be allowed to move part of the equipment from the mill when his lease expired.

J'ai bâti sur le canal qui s'y trouve une bâtisse qui doit rester au government. Dans celle-ci il y a le mécanisme nécessaire pour faire mouvoir une scie circular. C'est de

celui-ci dont il s'agit. Il y a une cour d'eau [?] pour la scie, [?] Le tout est parfaitement indépendant de la bâtisse et peut en être sorti sans l'injurier.⁴

Beaudet's lease was renewed and in consequence he did not dismantle his mill at this time.

Beaudet continued to lease the site as late as the 1880s; in 1889 he again requested permission to remove his mill.⁵ Permission was granted, but the mill was still shown on a plan in 1891. At about this time a financial group, including Beaudet, planned an elaborate industrial complex for the site. But the project collapsed when the major backer from Montréal died. The 1890s seem to have marked the end of Beaudet's lease. The property was then transferred to the Department of Railways and Canals, which was engaged in the construction of the Soulanges Canal. In the years that followed, the site seems to have stood vacant.

Structural Details

Beaudet's mill, as mentioned above, straddled the north end of the canal. It was probably constructed of wood, perhaps using the sides of the canal as foundations. A circular saw located in the mill was worked by a water wheel turned by the current.

The only remains of the sawmill and its operations uncovered during the excavation of the canal were a large number of quarter slabs from the logs cut at the mill, several fans which had fallen from the water wheel, a gear supposedly from the water wheel-saw assemblage, many files which must have slipped out of the hands of workmen sharpening the saw, and the lower support for the water wheel shaft. The latter is formed

by three beams, the uppermost, a 6 in. by 12 in. beam, notched on its upper surface for a length of five feet. A steel thrusting cup used to support the vertical water wheel shaft was located at the centre of this notch. The two lower beams were notched and drilled at the junctures where they were laid at right angles to and supporting the upper beam. Although no fastenings were found at these junctures, there was a long single drift pin without any apparent use driven through and bent over the west end of the northernmost support beam. The shaft support was not found lying flush with the canal bottom but on four to six inches of debris.

Prisoner's Island

During the American Revolution, a complex of buildings was put up on Prisoner's Island to accommodate prisoners captured by the British. At the peak of its activity it housed about 200 prisoners. After the war, the buildings were allowed to fall into ruins, so that by the turn of the century they were completely irreparable. The last military occupation of the island occurred during the War of 1812 when a blockhouse and gun battery may have been built there. In the 150 years following the war, private individuals have lived there or used the island for grazing.

Structural History

In the spring of 1781 Governor Haldimand decided to construct a prison compound on the island opposite the post at Coteau-du-Lac to relieve the crowded prison facilities in British North America.¹ By October there were already prisoners on the island. One captain, two subalterns and 80 men of Sir John Johnson's regiment were sent to take charge of them. Prisoners were also transferred to the island from other camps, such as Chambly and Montréal. Zadock Steele, a prisoner captured at Royalton, who left an account of his confinement at Coteau, arrived in October with other prisoners from Montréal.

Soon after the prisoners were established on the island, there was a disturbance among them. Consequently, Major Gray was sent to investigate the condition of the camp and its prisoners.

I have visited the post at Coteau du Lac on the 17th inst. and I find the alarm concerning the prisoners is groundless. The barracks are in good forwardness. I have stationed a subaltern officer and thirty men in the blockhouse on the island but as there is no room for the officers to live in, a small apartment should be built for them within the pickets. He is now in his tent. One captain, one subaltern and fifty men are in the fort. I think that such a number of troops and prisoners as are there at present would require the attendance of a doctor constatly. There are some of the troops and prisoners now sick....a month's provisions [should] be lodged on the island at this season of the year for fear that floating ice should obstruct the passage of boats before the Lake is taken.

As no signal from the island can be seen at night, a three pounder would be very useful in case of an alarm and another in the fort requisite to answer it.³

De Speth acted quickly on Gray's recommendation that a hospital attendant be sent to the island to take care of the sick. A mate was sent from the General Hospital.⁴

Ten days after Gray left, a fire broke out on the island. One of the barracks and the workshop were the only buildings destroyed, although

others were threatened.

About 2 o'clock this morning a fire broke out in the Joiner's workshop on the prison island and the flames immediately communicated to six of the barracks rooms which were all unavoidably consumed, and it was with much difficulty that the others were saved. However, they were, and no lives nor much property were lost. John Johnson, a soldier artificer belonging to the 2nd Battn. slept alone in the shop and Mr. Simmons acting Engineer says he thinks that Johnson had built a larger fire and did not take care to sweep away the shavings properly before he went to sleep, and that the fire was lighted therewith, but this is mere conjecture.^b

Thereafter, as a preventive measure, all fires were extinguished at 9 p.m. and patrols were sent out every two hours to ensure that the order was obeyed.

In December, Twiss himself visited the site and reported on its condition:

We found the Coteau Island extremely well arranged for the accommodation and security of Prisoners of War, and I think that Your Excellency will not hear of any making their escape [sic] from thence; the Buildings as they are now standing have births for 216 men, with a separate room for an hospital and one for the Surgeon's mate. Each room has a fire place and contains only 12 men, tho' in an emergency the number might be increased to 16; these buildings are commanded by a block house and guard house, and should the service require

more prisoners to be lodged there, there is a building of six rooms already begun and a vacancy where the Barrack was burnt down for six rooms more, both which might if necessary be finished early in the spring. I judge the distance from the Coteau to the Island to be about 500 yards but there does not appear any occasion for artillery at the former; I would only recommend a swivel at each place; with powder and a few balls, by way of an alarm, and two small flags to serve as signalas and I think these should be sent as soon as possible.⁶

Twiss's judgement was partly contradicted early in the summer of 1782, when the escape of some prisoners from the island led the authorities to revise their security measures: all the houses were surrounded with "a substantial picketting almost 12 feet high."⁷

In spite of these precautions, Zadock Stelle and other prisoners in his barracks succeeded in escaping from the island that fall.⁸ Using only a large jackknife they dug a tunnel from the barracks to a point outside the palisade wall -- a feat which used techniques and contained all the exciting episodes of the prison camp escapes of the Second World War. When allowed outside the palisade to cultivate their gardens, the prisoners prepared logs for a descent of the river, and, on the night of 10 September 1782, succeeded in escaping. Eventually they made their way back to their homes in the thirteen colonies. In spite of their escape, Twiss felt that the picketing was a sufficient security measure and did not recommend that anything further be done.⁹ Increased surveillance, however, probably followed.

After the American Revolution, the island seems to have been abandoned. In 1790, when an inspection report was made on Coteau-du-Lac, the buildings of the post were stated to be in a dilapidated condition, but there was no mention made of Prisoner's Island. Some structures were, however, still standing, for one was reported to have been destroyed by fire in 1806.¹⁰

During the War of 1812, a temporary battery may have been erected on the island to provide cross-fire with the guns of the fort. This was ordered to be constructed with the new fort at the Coteau. In December 1813, Colonel Scott, the commanding officer of the fort, reported on the measures required for the defence of the Beauharnois channel. He recommended the construction of a battery and blockhouse (apparently not on Prisoner's Island) and went on to say, "the Boharnois [sic] channel fortified in this manner with the works already ordered on the Coteau and Prison Island, I consider that both channels would be so strong that three quarters of the troops would at all time [be] disposable."¹¹ This is the only statement discovered which refers to defensive measures on the island. During the war the island was stripped of foliage to supply wood for construction on the mainland and to provide a clear field of fire for the guns of the fort.¹²

After the war, the island was used for grazing purposes by various private individuals. Local sources state that, at the turn of this century, there were temporary buildings housing domestic animals and some substantial houses on the island.

Field investigation ascertained that the prison was situated within the area of sections F and G marked on the sketch plan of the island. Two modern cabins and several earlier building foundations were located.

Several piles of rock may represent either the remains of buildings or the palisade which Steele mentions. Two small man-made depressions filled with water were also found. The surface discovery of three pitch forks attests to the island's suitability for grazing. Unfortunately, work on the island lasted only 10 days because of a lack of available funds. During this time, however, it was determined where further investigation could reveal more information about the prison.

Structural Details

Palisaded Enclosure

When the camp was established in 1781, a row of pickets surrounded the compound. This appears to have been replaced by the "substantial picketing 12 feet high" mentioned above.¹³ According to Zadock Steele, this strengthening of the compound took place in the early summer of 1782, after an escape by some prisoners from the camp.¹⁴ ("The British now set about encompassing our barracks with pickets, or barricades, by setting posts in the ground adjoining each other and fastening them together.") When Steele dug his escape tunnel, he found that the pickets were set on large stones ("when we arrived to the picket, we found it was placed upon a large stone. We then dug to the right, where we found another which formed an angle with the first -- then turning to the left, we also found a third.")¹⁵ The whole yard by Steele's estimate was "ten or fifteen rods wide, and nearly forty rods long, extending lengthways of the stream."¹⁶ The yard was completed in July 1782.

Workshop

On 30 October 1781, fire broke out in the workshop on the island.¹⁷ Since the building is not mentioned in subsequent documents, it was probably completely destroyed. It may have been a temporary workshop erected for use during the construction period.

Blockhouse

The blockhouse, which could accommodate 30 men, was one of the first buildings erected on the site, since it is mentioned in a document dated 20 October 1781.¹⁸ No structural information about it is now available.

Guardhouse

The guardhouse was erected at the same time as the blockhouse. According to Steele, prisoners were thrown into it in irons.¹⁹

Commanding Officer's Quarters

In October 1781, there was "no room for the officers to live in." The officer in charge recommended that a "small apartment should be built for them within the pickets."²⁰ This was apparently done soon after, for Steele complained that the prisoners were ordered by the officer in charge of the camp "to shovel the snow from the door of his own house."²¹

Barracks

In December 1781, there were barracks buildings to accommodate 216 men "with a separate room for an hospital and another for the surgeon's mate." Each room could normally contain 12 men in bunks or 16 men in case of

emergency. Calculating 12 men to a room, there would have been 18 barrack rooms -- perhaps three barracks of six room each.²² In addition, a building of six rooms was then under construction and there was space for another where the barracks had burned down in October. If necessary, one could be finished in the latter position "early in the spring."

The barracks were probably constructed of wood, judging from the effect of the fire in October 1781, when one of the barracks buildings was completely gutted.²³ They must have had foundations of stone or some other material, because the floor of the barracks was high enough above the ground to permit Steele to store the earth excavated from his tunnel into the space between the floor and the ground. Under Steele's barracks was a "clay pit" "where they the British dug clay for their chimneys," and there may have been others around the compound. Earth was taken from a trench between the palisade and the barracks "to bank up the walls of the barracks." The buildings seem to have stood about 20 feet from the palisade and probably parallel to it.²⁴

There was a fireplace in each room. The floors were made of wood. There also seems to have been a series of supporting posts to which the men on one occasion were "hand-cuffed and chained." The buildings do not seem to have been weather-tight, for they were said to be "very cold and open."²⁵ The prisoners slept in bunks.

One of the barracks was used as an ash house. In January 1782 a number of prisoners were kept there "with the windows and doors open to the wind and snow, all that day and the next night."²⁶

Miscellaneous Structures

Engineer Smith Shop

The "engineer smith shop" appears on the 1814 plan of the fort (Fig. 26). In 1815 it is described as a "deal building."¹ In considerably bad repair in 1823, it was noted as a "framed building on a stone foundation, clapboarded, 40 x 25 feet."² It does not appear on subsequent plans.

The blacksmith's shop was probably constructed during the War of 1812 to provide facilities for the garrison and for the extensive construction of that period, although it may have dated from an earlier time.

The main part of the building was divided into two unequal portions, with the forge in the larger section of the two. The forge stack does not seem to have ended in a chimney. The lean-to at one side of the building was simply constructed and was probably used for storing firewood for the forge.

The building's site is now under the waters of the Delisle River. Extensive quarrying, probably in the 1890s, seriously disturbed this entire area.

Temporary Sheds

The two temporary buildings on the point are described on the 1814 plan (Fig. 26) as "low sheds, temporary, intended to be pulled down as unserviceable." These sheds, obviously in poor condition and scheduled for

demolition, may have dated from the American Revolution, or they may have been erected as temporary service buildings, thrown up quickly at the beginning of construction or during the War of 1812 to serve the garrison until more substantial buildings could be put up to replace them. Eventually the sheds were torn down and the western part of the earthworks of the cloverleaf bastion was erected in the same location. They were probably simple wooden buildings with foundations consisting of little more than wooden sills resting directly on the ground. They were most likely used for storage of equipment or, perhaps, for artillery stores. They no longer appear on the 1815 plan. No remains of these buildings were uncovered during excavation.

The Entrance

The earliest entrance to the fort is recorded on the 1814 plan (Fig. 26). This entrance may have followed one of the earlier entrances used when the site was only a small post, or it may have been built and used when the earthworks were being formed around the canal and the associated buildings.

The route leading to the fort after the formation of the earthworks passed over a plank drawbridge spanning the dry ditch and through a 10-ft.-wide cut in the redan. A stone walkway led from the drawbridge into the fort. A gate in the approximate middle of the passage through the redan controlled access to the fort.

When the fort was undergoing repairs in 1838, there were recommendations that the sides of the gateway be planked.¹ The fragments of horizontal beams, one on each side of the entrance, uncovered during

excavation, probably represent the base of the wooden retaining wall which lined the passage through the redan. The same 1838 estimate also stated that a new gate was indispensable. A series of flat upright stones forming what may be a socket at the middle of the north side of the gateway and a similar, collapsed feature opposite it probably represent the bases from which a barren gate swung. No drawing or written descriptions of the gate have, however, been found in historical documents and none of its component parts were found during field investigation.

Temporary Guardhouse

This is described on the 1814 plan as a "Temporary Guard House." By 1815 it had been replaced by the permanent building, located to the north. The structure may have been an earlier building converted to a temporary guardhouse. It was probably built of logs without a foundation. No details of the structure are available, and nothing was uncovered during field investigations.

Maypole

A squared post, .45 by .45 ft., was uncovered in the area where a maypole is indicated on the 1814 plan of the fort. This is rather unusual, since maypoles are usually round, not squared, and are made by cutting the branches off a tree until nothing was left but the top, where the leaves were left as decoration. This maypole was set into the earth, supported by several large field stones and flanked by large rock slabs. It may have dated from the American Revolution, when a number of families were living at the post, or from the early years of the War of 1812.

Earthworks

The earthworks appear to have been shaped during the expansion of the fort between 1813 and 1815. Those on the northwest side of the canal were more elaborate than those on the southeast side. A cross-section of the former drawn in 1815 (Fig. 6) shows a fully-formed earthwork complete with fraising. There may also have been a masonry counterscarp.¹ The section drawing is probably idealized -- designed to present the best possible image of the engineer's work. Nevertheless, the drawing would present the escarp's shape. The ditch was deep enough to allow river water to flow into it from either end.

Although there are no historic section of the earthworks on the southeast side of the canal, it would seem from plan views that the earthworks were not as wide here as they were on the northwest side. The cloverleaf bastion and the 24 pounder gun position beside the canal may have had the same shape as those on the northwest side, but smaller in proportion and without a ditch.

The earthworks began to erode almost as soon as the garrison of the fort was reduced in size, since earthworks require constant upkeep if they are to retain their original shape. By 1838 they seem to have been well on their way to ruin.

During the Rebellion of 1837-38, the earthworks may have been improved considerably. A plan of January 1838 includes proposals for "a new cut banquette" on the interior of the fort, as well as fraising, palisading, barricades and an abbatis. Some, if not all, of these proposals were carried out, for Captain Bell (in charge of the fort after 3 January) noted that he "superintended the workmen employed by the engineer department

in putting the fort in a state of defence."²

By the turn of the century the earthworks were only rounded mounds, as they are now. There has been considerable distortion in the northern part of the earthworks where a length of the ditch has been altered by levelling and filling.

Structural Details

A trench excavated halfway through the earthworks in front (west) of the gun platform south of the guardhouse indicates that the earthworks were built to their original height by a series of layers of mixed dirt and pebbles obtained from the ditch. This material may have been supplemented by earth from other nearby areas.

Garden

The location of the garden varies from plan to plan, although it is usually found south of the commanding officer's quarters. This was its position in 1814 (Fig. 26). In the 1830s, two locations are shown: one north of the commissariat officer's quarters, another behind the commanding officer's quarters. On plans of the 1850s, roughly the same areas are shown, but the garden north of the commanding officer's quarters has become much more elaborate and well-defined. The gardens appear to have been surrounded by a board fence. This was the case in the 1850s and 1860s, when references were made to it by various tenants of the provincial government.

Soil stains 1 ft. deep recorded in the area of the barracks master's quarters could be the remains of one of these gardens. At first it seemed that these stains represented wall trenches associated with the construction

of the barrack master's quarters, but further investigation showed them to antedate the two masonry features associated with this structure.

It is not known what was grown in the garden, but the plants were sown in parallel rows, 1.5 to 2 ft. wide, 6 to 8 ft. apart. The produce probably supplemented the commanding officer's mess.

walkways

No walkways are shown on historic plans, but field investigation uncovered an entire network of walkways throughout the fort.

The principle walkway extends from the entrance to the fort, around the north end of the barracks to the west side of the bridge spanning the canal. On the east side of the canal, it runs past the hospital/master carpenter's quarters and ends at the entrance to the octagonal blockhouse. A glance at the topographic plan of the site shows that the walkway provided an efficient and mud-free passage within the fort.

The construction of this and smaller secondary walkways associated with some of the buildings was performed in basically the same manner. A border of large, roughly squared stones outlined the shape of the walk and small cracked field stones were dry laid between them. After excavation, it was thought that many of the stones were not laid flat during construction because of the unevenness of the walk surface. But the subsequent opinion of engineers is that the unevenness is due to frost action and not to any quirk of workmanship.

Narrow walks connected the guardhouse, barracks and hospital/master carpenter's quarters to the main walkway. It is possible that more of these secondary walkways exist in unexcavated areas between structures and the

Principle walkway. It was not considered feasible to remove most of the sod in the fort to locate and excavate them, however. A large quantity of split stone was noted in the area between the east side of the barracks and the western bridge abutment. Because of insufficient excavation, it is not possible to determine whether or not this was a drill area.

Service Buildings of the Commanding Officer's Quarters

Throughout the long history of the commanding officer's quarters, a variety of small structures appeared behind the main building. Their location and the brevity of their existence suggests that they were probably lightly built service buildings such as privies and storage structures.

One of the larger buildings appears on the plan of 1814 (Fig. 26) as the officers' servants' quarters. In 1815 a building in much the same location and about the same size is described on the plan as "Store House for the Mess, small Log Building" (see Fig. 27).

No buildings are shown in this location on the 1823 plan. Durnford did not record small buildings elsewhere, however. A building the size of the servants' quarters/storehouse appears on this site in plans of 1834 and 1857, although, in the latter case, the building is shown placed at a different angle. In 1857 a cluster of small buildings or sheds was located in the general area.

Structural Details

Intensive investigation of the area occupied by the officers' servants' quarters and other minor structures revealed one post hole, a few fragments of rotted wood, what might have been a building foundation and hearth base, three shallow, asymmetrical trash pits, 1.5 to 2 ft. deep, and many glacially deposited stones.

The posthole, which was 1 ft. deep by .5 ft. in diameter, and the rotted wood fragments may have formed part of what has been described as "a small log building" or one of the other buildings constructed in the same area. The trash pits may also have been associated with one of the buildings, or, more likely, may have been used for refuse from the nearby commanding officer's quarters. The large quantity of stone uncovered at times seemed at first to have been part of a building or hearth foundation, but subsequent analysis strongly indicated that the distribution of stones was probably natural rather than the work of the historic inhabitants of Coteau-du-Lac. Since nothing which could definitely be described as a foundation or hearth base was found, it seems likely that the buildings constructed in this area were built directly on the ground and were not heated by masonry fireplaces.

Temporary Shed/Artificers' Barracks

This building appears abutting the octagonal blockhouse on the plan of 1814 (Fig. 26) and is identified in the plan as a "Temporary shed occupied by Artificers of Engr. Dep't proposed to be pull'd down when the stone Barrack is completed." This may have been an earlier building converted into a barracks for the workmen involved in the construction of the new

fort, or it may have been a jerry-built shed thrown up for construction purposes. A long building is shown on the point in the Rudyerd sketch of 1788 (Fig. 5), but it does not appear to be in the same location as the shed shown on the plan. This discrepancy could, however, be an error on the part of the artist. The shed no longer appears by the time of the 1815 plan (Fig. 27). Although the area around the east end of the building was investigated, no architectural features were uncovered.

Temporary Shed/Artillery Store

This building, located adjacent to the earthworks on the south side of the point, may have been erected at the beginning of the War of 1812 or at an earlier period. It appears only on the 1814 plan (Fig. 26) and is described as an artillery store. It was probably a wooden building of very simple construction. No attempt was made to locate the remains of this structures.

Temporary Backhouse and Canteen

This building, shown only on the 1814 plan (Fig. 26), immediately east of the hospital/master carpenter's quarters, was probably constructed to serve as the bakehouse and canteen for the increased garrison at the beginning of the War of 1812. Alternatively, it may have been an earlier building converted to this purpose until it could be replaced. When another, more substantial blockhouse had been constructed, the temporary building is no longer shown on plans.

Although the bakehouse itself was far from complex, it probably contained quite elaborate ovens and so forth. According to the plan,

it was divided almost equally into a canteen and a bakehouse. Nevertheless, field investigation failed to reveal any architectural features.

Unidentified Building

An unidentified building located east of the temporary bakehouse/canteen appears only on the 1814 plan. By 1815 it had disappeared. It may have been an old building torn down when the new fort was completed or a temporary construction building. Although a few fragments of charred wood and several small stones were found during excavation, nothing indicated whether or not they originally belonged to this structures.

Privy

This structure, shown only on a plan of 1850, is located below the earthworks on the south side of the point. It was not excavated.

Shed

This structure, shown only on a plan of 1850, was north of the ditch at the northwest corner of the fort. It may have been a storage shed or similar temporary building.

Private Store/Slaughterhouse

This is shown on the 1815 plan (Fig. 27) as a "Private Store, formerly the Slaughter House Log Building." It is omitted from the 1814 plan, probably because it was a private building. It is not shown on plans after 1815. As it is unlikely that a private building would be allowed to stand for long in such a strategic location, it was probably removed.

Any remains of the building would have been destroyed by quarrying in the area adjacent to the Delisle River.

Officers' Necessary

This is marked on the plan of 1815 (Fig. 27) as the officers' necessary. Although not shown on subsequent plans, it may have been omitted because of its unimportance.

Rough Frame of a House

This structure appears only on the 1814 plan, but was probably a survival from an earlier period. Whether it was a building which was not completed or one which was falling into ruins is not known.

Boat-building Complex

These buildings appear only on the 1814 plan (Fig. 27). As boat-building was carried on at the fort during both the American Revolution and the War of 1812, the buildings could date from either period. Their disappearance after the latter conflict would, however, indicate that they were old by that time. They were probably all of very simple construction.

Boat Shed

The actual construction of the boats was probably carried out in this building. As an elaborate structure was not necessary, it seems most likely that the building was of sill-on-ground construction with a dirt floor.

Boat-Builder's Quarters

The smallness of this building indicates that it could accommodate only a few men. Although elaborate enough to provide a secure habitation, it may have been used only in summer.

Boiler

Here the mechanism for steaming and warping the boards used in boat-building was located. There should have been a heating arrangement to produce the necessary steam.

Private House

This dwelling, located on the property of I. Watier, is included on plans in the 1850s, although it was probably not connected with the fort. The construction of the Watier house probably destroyed the remains of some of the buildings in the boat-building area. The house presently on the site might be the one shown on the 1850 plan of the fort.

Resistivity Surveys at the
Fort at Coteau-du-Lac, Quebec
by A.E. Wilson

Resistivity Surveys at the
Fort at Coteau-du-Lac, Quebec
by A.E. Wilson

249	Introduction
251	Equipment and Survey Techniques
252	Results of the Survey
253	Barrack Master's Quarters
253	Operation 9G23
254	Operation 9G27
254	Operation 9G29
255	Operations 9G30, 9G35 and 9G37
255	Operations 9G33 and 9G34
255	Operation 9G36
256	Conclusions
258	Endnotes

Introduction

A limited program of resistivity surveying was carried out at Coteau-du-Lac in May 1966. The map accompanying this report shows most of the area surveyed; a gently undulating two-acre field to the west of the fort. This field is bounded on the west by a paved road and privately owned property, and on the east and south by the dry ditch of the fort and a low, swampy area beside the river. Back dirt from the 1965 excavations prevented an extension of the survey to the north.

Historic maps indicate that only one structure was built in the field surveyed - the barracks master's quarters. Because previous excavations had shown that locations from historic maps of Coteau-du-Lac were reasonably accurate, the resistivity survey was speculative. It was undertaken to locate the possibility of historically unplotted structures, and as an experiment to evaluate the applicability of resistivity surveys to the site.

Historic maps show several structures located beyond the west edge of the field, on what is now private land. Although an attempt was made to survey this area, the presence of a modern house, gardens and paths, and the understandably uncooperative attitude of the property owner prevented all of the projected survey from being completed. However, the surveys completed there provide no clues to the location of any structural remains.

According to an historic map, another structure was located on the east side of the paved road, at the south end

of the bridge over the Delisle River. Although surveying there was considered, the idea was abandoned because the area involved is too small to provide adequate control; the surface is very uneven and the ground is covered with rubble of apparently modern origin.

Most of the structures within the fort had been excavated at the time of the survey, and the unexcavated areas were broken by piles of back dirt and by materials used in masonry consolidation work. Thus, no effective survey could have been made within the fort.

Equipment and Survey Techniques

The instrument used was a Gossen GEOHM Resistivity Meter. The electrodes were 1/2 inch diameter aluminum rods and the leads were helical form insulated wires, which could be extended from 10 feet to 25 feet. The Wenner System (four electrodes) with parallel traverses was used for the survey. This method is discussed by Atkinson¹, by Aitken² and in a report on resistivity surveys in Newfoundland and Nova Scotia³.

An electrode spacing of 2.5 feet was used. Authorities on resistivity surveying indicate⁴ that with this spacing the depth of the volume of earth whose electrical resistance is taken with each measurement is a minimum of 2.5 feet and probably not effectively more than 4.0 feet. In view of the depth of overburden on the structures that had been excavated at the site, this electrode spacing seemed adequate.

In this application of the Wenner System to an area survey, the resistance measurements in ohms were recorded as point values (located at the centre of the electrode configuration for each measurement) on sheets of squared paper corresponding to sections of the survey grid. Resistance "contours" were developed by straight line interpolation directly on these survey notes. Resistivity of specific resistance values corresponding to the resistance measurements were not used. The former are calculated on the basis of the electrode spacing, and at any one location should vary only with the varying constituents

of soil volume for various depths of measurement. Resistivity values could be most useful in comparing surveys of the same area done with different electrode spacings; for the survey at this site, the latter was constant.

Results of the Survey

The interest of this survey focuses on departures from the general pattern of resistance values--on "anomalies". In this case a resistance contour pattern was developed at an arbitrary contour interval of ten ohms. The pattern is characterized by a number of discrete areas of relatively high resistance. Several test excavations were made to determine the cause of some of these "highs". The excavations are referred to by the operation numbers used in the field reports, and are indicated on the map.

Barracks Master's Quarters

Operation 9G23

This excavation was not prompted by the resistance pattern, but by the historically recorded location of the barracks master's quarters. Also excavated were several soil stains which formed a pattern.

Although two masonry hearths were uncovered, the resistance pattern in no way indicated the presence of these features. Each hearth is approximately 5 to 6 feet square and 1 foot thick, constructed of mortared stones of about 0.5 foot diameter covered by a shallow overburden 6 to 8 inches in depth.⁵ There seems to be no reason why the locations of these hearths were not apparent in the resistance pattern. The outer electrodes were 7.5 feet apart throughout the survey. For measurements made directly over a hearth, the outer electrodes spanned it, and the current paths they generated could have passed above and below the hearth with little distortion, thus yielding a resistance measurement as low as those made in the surrounding control area. However, adjacent measurements must have been taken with an outer electrode over the hearth, and the current paths should have been sufficiently distorted to produce a high resistance value. The result would have been an M-shaped, resistance profile in each traverse as it crossed a hearth.

An example of this is demonstrated in Aitken's illustration of the location of a wall by a resistance profile.⁶ The feature illustrated is about the same size

and depth below surface as the hearths in 9G23, and the corresponding resistivity profile has the "M" shape described above. However, the electrode spacing is only one foot, and the wall would have been a relatively large disturbance to the smaller current path pattern.

The last point suggests the best explanation for the failure of the survey to locate the hearths in 9G23: with an electrode spacing of 2.5 feet, the shallow hearths did not constitute a large enough part of the conducting volume to produce higher resistances. Also, soil moisture at the time of the survey was probably a factor in the failure. Spring rains were just ending, and the masonry may have been so wet that it was not of appreciably higher resistivity than the soil around it.

Operation 9G27

This operation investigated an area where a number of stones projected above the sod. But, because resistance values were constant and low across this area, no features were predicted. The excavation was carried to a depth of less than 2 feet, where a few unworked rocks were uncovered.

Operation 9G29

A well defined high resistance anomaly was found here early in the survey which strongly suggested remains of the barracks master's quarters. However, the excavation of the hearths and the development of the resistance pattern over the rest of the surveyed area vitiated this suggestion.

As a shallow depth in this test excavation, soil stains were found similar to those excavated in the area of the barracks master's quarters. It was considered inadvisable to remove this evidence, and only a portion of this

operation was excavated to a depth of 2 feet. The excavation was, therefore, too shallow to reject conclusively the possibility of structure remains, but other test excavations of similar "highs" indicate that most probably nothing was located here.

Operations 9G30, 9G35, and 9G37

These three excavations were made to investigate a large area of high resistance which, with the approximately rectangular area of low resistance within it, strongly suggested the remains of a building. But, no structural remains were uncovered by excavation.

9G30 was excavated to a depth of 3.5 feet below ground surface, where a stratum of very hard blue clay was encountered. 9G35 was excavated to a depth of 3 feet below the surface where only natural strata of loam and silty clay were encountered. 9G37 traversed from the edge of a "high" into a low resistance area. A stratum of bluish clay was found about 3 feet below the surface, and bedrock was encountered at 5 feet.

Operations 9G33 and 9G34

Soil stains similar to those first seen in the vicinity of the barrack master's quarters were uncovered as in operation 9G29. Consequently, neither excavation was carried more than about 1 foot below the surface. Apart from the stains, no disturbance was noted in the strata.

Operation 9G36

The north part of this operation was excavated to a depth of 6 feet below the surface but nothing was located to explain the cause of the relatively high resistance recorded in this area.

Conclusions

It could have been more informative to carry each excavation well below the theoretical maximum depth of the resistance measurements (which was 4 feet for this survey) and also to excavate in areas of background or neutral resistance, while keeping a careful record of strata descriptions and depths. With these data, a relationship between the resistance values and the constituents of the soil could possibly have been established, and the resistance anomalies thereby explained qualitatively, if not quantitatively.

However, it is evident that the anomalies were due solely to variations in the more or less natural strata. In the resistivity survey at Isle-aux-Noix in 1964, anomalies of similar strength were generally related to the presence of structural remains, so it is instructive that at Coteau-du-Lac they did not indicate the same features. This emphasizes the pragmatic nature of the resistivity survey method in archaeology; the relative conductivity of any remains cannot be predicted generally, and an interpretation of the resistance pattern of a site, while it will depend of experience with previous sites, must depend ultimately on excavation experience in that particular site.

It should be remembered, however, that, except for the sake of speculation and the location of the barracks master's quarters, there was no reason to do resistivity surveying in this area. It is probable that if there had been substantial structural remains within the area, they would have been located by the resistance pattern.

Moreover, a first failure, in an earnest search, would likely have led to a new survey with a different electrode spacing. At Coteau-du-Lac, with the previous experience of overburden depths, the new electrode spacing would have been smaller, and the second resistance pattern would probably have defined the location of the hearths missed on the first attempt.

The failure of the survey to locate structural remains is not a failure of the resistivity method (even when considering the hearths), but a reasonable result of this application of the method.

Endnotes

- 1 "The Scientist and Archaeology," Pyddoke, Atkinson, p. 4 ff.
- 2 "Physics and Archaeology," M.J. Aitken, p. 62 ff.
- 3 "Report on resistivity surveys," A.E. Wilson, pp. 1-3.
- 4 Pyddoke, op. cit., p. 4; Aitken, op. cit., p. 63.
- 5 Such information is taken from the site assistants' reports.
- 6 "Physics and Archaeology," M.J. Aitken, p. 70.

The Octagonal Blockhouse
at Coteau-du-Lac
by George C. Ingram

The Octagonal Blockhouse
at Coteau-du-Lac
by George C. Ingram

261	Historical/Archaeological Information
265	Structural Information
269	Specific Documentation
269	Basement
269	Central Bearing Wall
269	Lamp Recess
270	Doorway
270	Supporting Posts
270	First Floor Framing
271	Chimney/hearth base
271	Masonry Perimeter Walls
271	Interior
271	Exterior
272	Exterior
272	Walls (General)
272	Entrance
272	Openings (First Storey)
273	Openings (Second Storey)
273	Overhang
273	Exposed Second Floor Framing
273	Roof
274	Chimney
275	Endnotes

Historical/Archaeological Information

On 14 January 1813 Lieutenant Colonel R.H. Bruyères, the Commanding Royal Engineer in Canada, visited the post and canal at Coteau-du-Lac in a general inspection of the defences of the Upper Province. Coteau-du-Lac demanded attention on two counts: it lay on the invasion route from the upper province should the Americans attempt to come down the St. Lawrence to attack Montreal; and the canal there was an important link in the supply of the British posts on the Upper Canadian war front. The existing blockhouses and crude defences were in a "decayed" condition, decrepit survivals of the Revolutionary War.¹

Bruyères saw the importance of the position and recommended the construction of elaborate fortifications. He felt that the post should be "strengthened and occupied as soon as possible" and that a blockhouse should be constructed "to contain 200 men".² In the spring Captain J. Gray of the 5th Embodied Militia was appointed to superintend the works and a large work force was gathered on the site. Construction continued in earnest through that summer and the next using local materials gathered in the adjacent woods.

As Bruyères had recommended, an octagonal blockhouse was erected on the point. By 1 June 1814 the blockhouse was finished, with the exception of the chimney which had collapsed when fire had disintegrated the mortar.³ The blockhouse was:

Complete in every respect, except the chimney, part of the stones to back and frames having fallen out, owing to the quality, not being fireproof, which breach has caused a small rent to masonry. In other respects it is substantial. The chimney [?] can be remedied by repairing masonry and facing the interior with bricks.

A plan dated one week later shows the blockhouse as completed. It was then used as an ordnance store, although it was intended to serve as a barracks to accommodate 200 men.

Ironically, the fort and blockhouse were completed only when they were no longer needed. The end of the war brought extensive reductions in the garrison and the barracks in the parade square was more than adequate to accommodate the remaining men. The blockhouse was probably never used to capacity as a barracks building, and was instead left vacant or devoted to other temporary functions. When the existing hospital proved inadequate in 1815 the upper storey of the blockhouse was appropriated for the sick of the garrison.⁴

Mr. Cleghorn the Assist. Barracks Master at the post of Coteau du Lac has been ordered by Captain Park of the Royal Marine Artillery to deliver over the upper storey of the new blockhouse for a Garrison hospital and [it] is now converted to that purpose, which [is] contrary to the original plan of appropriation the building having been fitted up as a Barracks for the accommodation of 148 men.

The changeover was disputed by the Barracks Master General, who argued that the barracks should not be used as a hospital. Park, justifying the action, argued that the allocation was temporary and explained that no permanent

changes had been made to the structure:⁵

It is the upper storey of the blockhouse No. 1 which to admit of the working of a gun placed in it has not been fitted up in the usual manner [i.e. with bunks] but hammocks substituted in their place to be suspended from a rail which for the reasons above mentioned is so constructed as to be removed at leisure; this rail is the only part of the room that has been displaced and can be restored in ten minutes when required. This room can only accommodate 64 men instead of 148 as represented.

The arguments over the blockhouse became academic with the reduction of the garrison. The blockhouse may have provided accommodation for workmen involved in the repair of the canal or other transients at the fort, but any other extensive use is unlikely after 1820. In 1823, when the building was inspected, it was, however, still in tolerable repair:⁶

Octagon Blockhouse -- log building with a stone basement for powder magazine and cellars for provisions, the second storey is fitted up with berths as a barracks and to mount a 24 pounder on traversing platform on top; 25 feet to wall plate and 35 feet in diameter.

From then the blockhouse went downhill; and by the 1830s it stood in ruins. At the outbreak of the Rebellion of 1837 it was destroyed by fire "to prevent the enemy making a lodgement behind it".⁷

The blockhouse being in a dilapidated state and not fit for any defence was ordered to be taken down or fired by Captain Phillipotts Royal Engineers, and finding it not safe for

men to take it down was set fire to and burned to the foundation to prevent the enemy making lodgement behind it in their intended attack on the fort.

Structural Information

The blockhouse was a squared log building with a masonry cellar and a red sheet-metal roof. The cellar was divided into two sections; one half was used as a powder magazine and the other as a store for provisions. In the centre was the base for the chimney which continued through the blockhouse to the roof. There may have been posts supporting the first storey on either side of the masonry dividing wall. Two fragments of wood which may be interpreted as remains of the posts supporting the first storey were uncovered in this area. Access to the cellar was through a trap door and down a ladder.

All that now remains of the blockhouse are the incomplete, octagonal shaped masonry foundation, the wall dividing the cellar and the rectangular chimney base. Excavation revealed charred but largely intact sections of the wood floor on both sides of the cellar and the metal sheeted door that separated the two rooms.

The standing masonry was built with roughly faced, squared and coursed limestone, probably quarried from stone deposits on the nearby west bank of the St. Lawrence River or from the quarry on the south bank of the Delisle River. The first step in building the structure was to excavate a hole the same dimension as the exterior of the cellar to bedrock which served as a footing for at least the west side of the foundation wall. A course of wall stones was laid on bedrock with an ample quantity of lime mortar and spalls, and the area between the building stones and earthen

face of the hole was filled with unworked stones and mortar. At each angle where the eight wall sections forming the octagon-shaped foundation abutted, every other course was linked by a dogleg-shaped corner stone whereas the other joints were formed by two abutting corner stones. This process continued until the foundation walls reached ground level. Above this, the exterior and interior sides were built with roughly faced and squared stones and the space between them was filled with stone rubble and mortar.

The wall dividing the basement was constructed in the same fashion as the foundation wall above ground level. The stones forming the door jamb were squared and faced as were the corner stones associated with the chimney support in the center of the dividing wall. A small trapezoidal opening with a plastered bottom is situated to the east of the chimney support. This opening (lamp recess) housed a lantern behind a pane of glass which protected the explosives from the flame. Fragments of this pane were found scattered on the floor below the opening.

Below floor level on each side of the chimney support, a small drain provided an exit for water from the powder magazine to the storeroom. An exterior drain carried the water from the storeroom below the surface to a point beyond the earthworks.

The basement floor was constructed in 12 sections, 6 on either side of the dividing wall. Each section consists of several transverse planks .8 x .9 ft. wide by .1 ft. thick nailed to a series of log joists placed in a north-south direction. A crude stone footing along the inner face of the foundation wall supported the floor in this area and the space under the floor planks was filled with earth and small stones. A space was left open between the floor sections probably to facilitate drainage.

The door which separated the two sections of the cellar

was double-planked. It consisted of several longitudinal tongued and grooved .9 x .1 ft. planks backed by a row of tranverse tongued and grooved .75 x .9 x .08 ft. planks. Wooden pegs held the two sections together. Three equally-sized sheets of copper alloy were fixed to one side of the door by three different sizes of brass tacks. The lock, attached to the door with several screws, was found complete with its keyhole cover. Although the door was not found in situ, it was apparent that the spark-resistant metal panels faced the west side of the basement and that the door hung on the west side of the doorway.

Although nothing except a few fallen stones (probably from the fireplace) and large amounts of hardware remain of the first floor, documents show that the first floor was the main sleeping area and three-tiered bunks were placed along the outer wall. The large fireplace opened on this floor. The entrance to the structure was reached by steps on the exterior.

Access to the upper storey was by a ladder fastened against the central chimney. On the upper floor it was planned to mount one 24-pounder gun, and there was also provision for hanging hammocks.

The walk on the south and east side of the blockhouse was separated from it by a narrow drain. The stones of the walk were laid without mortar and with little attention given to their position or shape except for the border stones which were roughly squared and laid in a definite pattern.

The log palisade on the north side of the structure was defined by several fragments of upright butts measuring .5 - .6 ft. in diameter. The palisade appears for the first time in plans of the fort in 1815. It seems to have disappeared by the 1830s, but was replaced during the Rebellion. The area along the foot of the palisade base was supported by a

narrow band of unworked stone. The log palisade would not only have contributed toward the protection of the fort from river raiders but would have also served as a useful break against the cold winter winds blowing off the frozen river.

Specification Documentation

Basement

Flooring and Floor Framing

According to remains found in excavation the joists ran north-south at 5-ft. intervals (centre to centre) although there is some variance. The joists were simply left in the round, possibly adzed on the upper surface. They rested on a shallow footing which ran around the perimeter of the foundation walls. The planking varied in width from .8 to .9 ft. (this variation may have been due to deterioration in the wood) and was 1 in. thick. The flooring ran in an east-west direction (opposite to the direction of the joists).

Central Bearing Wall

The remains of the central bearing wall vary from 4 ft. to 4-1/2 ft. in height. Historically it was 7-1/2 feet high (this is the measurement from the floor level to the first floor framing).

Lamp Recess: There is no historical detail for the lamp recess although the section in the undated plan of the blockhouse (Fig. 39) indicates small openings in the bearing wall on both sides of the hearth base. Only one is shown in the east side in the plan view. During field investigation, indications of a trapezoid opening were found on the east side of the bearing wall. Glass would be placed in both

sides (and is shown in the plan view in Fig. 45) hinged on the cellar side and fixed on the magazine side.

Doorway: The doorway is located as indicated on the archaeological plan. It was 6 ft. high by 3 ft. wide. The door, as found during excavation, was double planked with a covering of copper facing the magazine entrance.

Supporting Posts

On the Durnford Plan of 1823 supporting posts are shown on both sides of the cellar. Indication of these was also found during field investigation. They are not, however, shown on the undated plan (Fig. 39) and no extensive footings were found during excavation. They are shown in plan as round posts about 12 in. in diameter. The lack of a footing and the fact that they were quite crude posts left in the round may indicate that they were auxiliary supports added when it was found that additional posts were required for the first floor framing system.

First Floor Framing

On both plans (Figs. 39 and 40) the framing is shown as being about 2-1/2 ft. thick. It consisted of layers of beams running alternately east-west and north-south, each beam being 6 to 10 in. thick. The heavy framing was probably intended as bomb-proofing.

The layer which was exposed in the basement area, and therefore subject to reconstruction, ran north-south. It probably consisted of oak beams about 6 in. thick and 10 to 12 in. wide. The rest of the first floor framing could be done with modern material, with the exception of the perimeter of the trapdoor opening which in the exposed area should show the different layers.

The flooring of the first floor would be installed using modern materials.

Chimney/hearth base

There is some difference between the dimensions shown in plans and the dimensions of the hearth base located during the excavation of the structure. The latter indicate that the hearth base was 6 x 6 ft. whereas the plans show 5-1/2 x 5-1/2 ft. Possibly the measurements for the historic plans were taken from the chimney at the first floor level where it may have tapered somewhat from the basement level.

Historically, the chimney continued through the building to and through the roof and provided a main support for the structure. It will be reconstructed only to the level of the first floor framing, where a recess should be provided to support the restored layer of the first floor framing. An alternate form of support will have to replace the chimney on the first and second storeys.

Masonry Perimeter Walls

Interior

The remains of the masonry perimeter foundation walls are about 4 to 4-1/2 ft. high above the basement flooring.

Historically they were 7-1/2 ft. high (above basement flooring) and formed a recess to support the first floor framing. The nature of the wall may be seen in the surviving portions.

Exterior

Historically, the exposed portion of the masonry wall (above ground) consisted of squared and faced stone laid in regular courses. The stone appears to have been larger and more regular than those of the surviving interior wall. Only one

course of this was found intact during excavation (the below-ground portions were rubble masonry). The exterior of the wall was originally 9-1/2 feet above the level of the basement floor. There were four ventilating slits as shown in the basement plan view (Fig. 46).

Exterior

Walls (General)

Historically the walls appear to have been constructed of squared timbers laid horizontally with a wooden upright at each corner (Red River frame).

Entrance

Access to the blockhouse was gained by way of a door (5 ft. wide) on the first floor. This was reached by a flight of steps as shown in the Woolford watercolour (Fig. 140). Note that the bottom of the doorway appears to have been at the same level as the bottom of the window. Steps leading down were required on the interior.

Openings (First Storey)

In Figure 140, one large opening is shown in each bay, straddled by slits on either side. In the Durnford plan (Fig. 40) only the large (2 x 2 ft.) openings are shown, 3 ft. from the top of the masonry and in the middle of each bay. According to the Durnford plan the sash, shutters or some sort of covering were on the exterior side of the opening.

Openings (Second Storey)

These are different in all three renditions of the blockhouse. In the Durnford plan (Fig. 40) openings measuring 1 ft. 6 in. by 4 ft. 6 in. are shown, one to each bay of the octagon, flush to the wall plate (12 in. thick). Another opening 1 ft. in diameter is shown 1 ft. below each rectangular opening. The undated plan (Fig. 45) shows only rectangular openings of the same dimensions as those of the Durnford plan with no indication of the round apertures. The Woolford watercolour (Fig. 140) shows a rectangular opening in each bay (quite low) and a long slit above it.

Overhang

On the undated plan (Fig. 39) the overhang is shown to be 1 ft. 6 in. wide, with machicolation around the perimeter of the blockhouse. The Durnford plan (Fig. 40) indicates an overhang of 1 ft. 6 in. on one side and one of 2 ft. on the other. No machicolation is shown either in plan or elevation.

Exposed Second Floor Framing

The Durnford plan (Fig. 40) indicates that the second floor framing fanned out from the central chimney and was exposed at the overhang: a large beam (probably 12 x 12 in.) to each corner and a smaller beam (6 x 12 in.) to the middle of each bay. In the Woolford watercolour, the beams seem to be placed at more frequent intervals.

Roof

The pitch of the roof may be ascertained from Durnford and undated plans. The roof appears to have been covered with

sheet metal painted red (a sample of this was found during excavation). In the Woolford watercolour it is shown brown, but this may have been artistic licence.

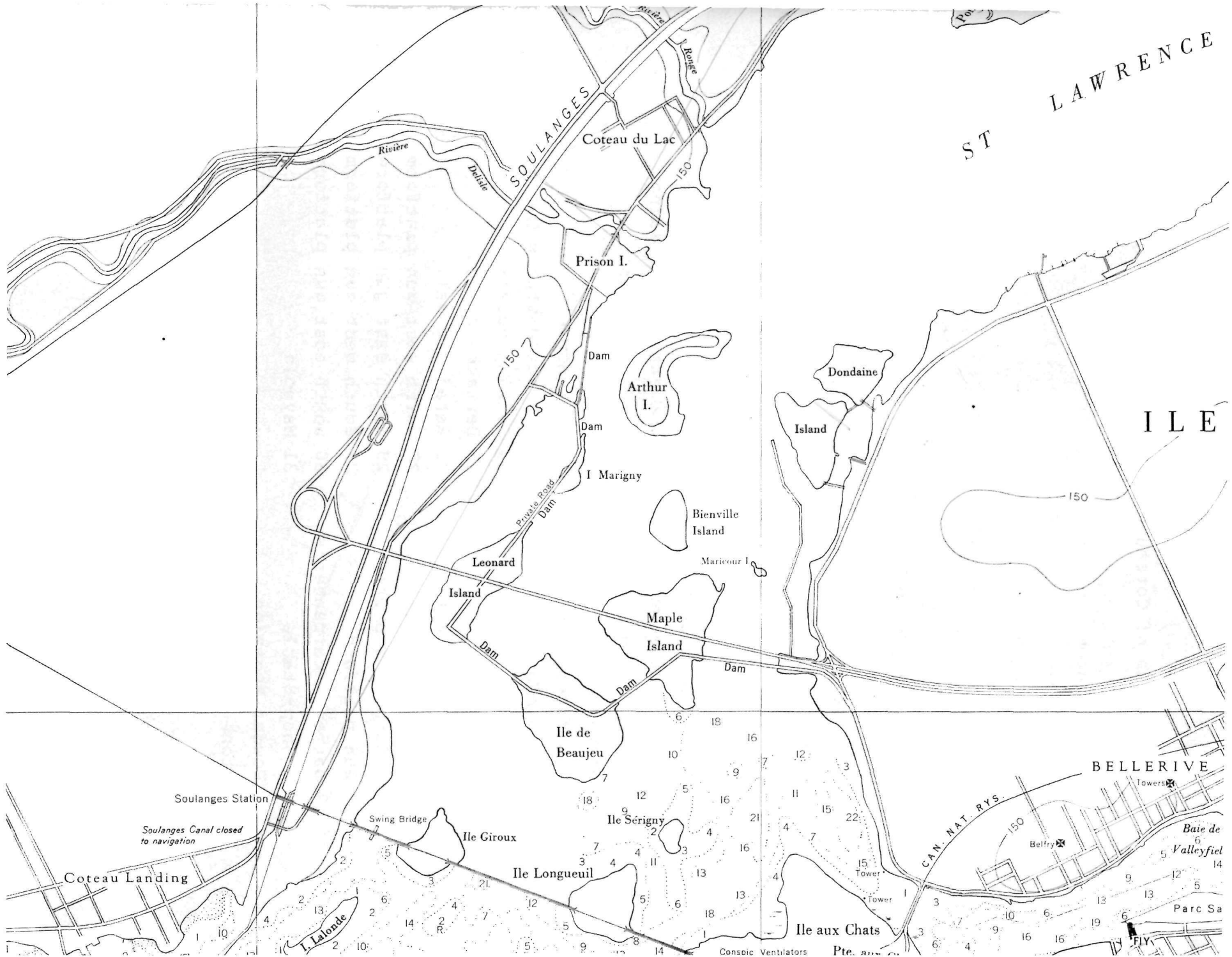
Chimney

The stone was octagonal and 4 ft. in diameter. About 5 ft. of it was exposed. Around the chimney was a flat surface 9 ft. in diameter (it is not known whether this was round or octagonal). A low railing, 2 ft. in height ran around the perimeter.

Endnotes

- 1 Bruyères to Prevost, 14 Jan., 1813, p. 5, C.387.
- 2 Ibid.
- 3 Report on the State.... 1 June 1814, pp. 141-3, C.388.
- 4 Cortland to Foster, 28 Nov., 1815, p. 149, C.556.
- 5 Park to _____, 12 Dec. 1, 1815, p. 168 ff., C.556.
- 6 Report on the Presnet State of the Several Barracks, 24 Sept., 1823, R.G. 8, II, pp. 42-4, Vol. 81.
- 7 Quarterly Return of Barracks..., 31 Dec., 1837, Vol. 1897, W.O. 55.

- 1 A general plan showing the geographic position of Coteau-du-Lac.



ST LAWRENCE

I L E

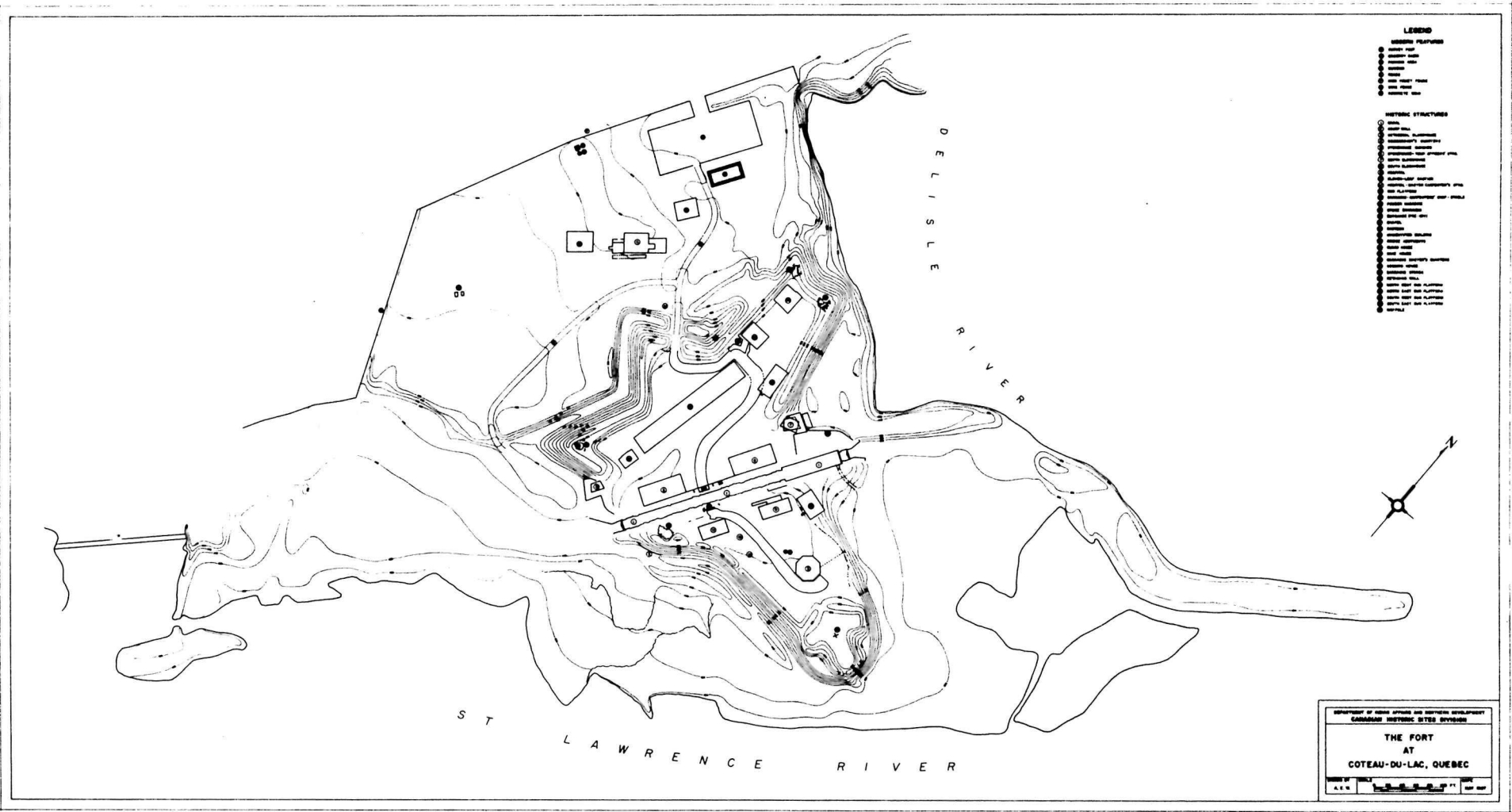
- 2 A modern plan of Coteau-du-Lac. The legend reads as follows:

Modern Features

- A Survey post
- B Masonry cairn
- C Parking area
- D Museum
- E Roads
- F Iron picket fence
- G Wire fence
- H Concrete weir

Historic Features

- | | |
|---|------------------------------|
| 1 Canal | 16 Entrance (pre-1814) |
| 2 Scarpwall | 17 Chapel |
| 3 Octagonal blockhouse | 18 Canteen |
| 4 Commandant's quarters | 19 Unidentified building |
| 5 Storehouse-gunshed | 20 Bridge abutments |
| 6 Storehouse-Temp.
Officers' Qtrs. | 21 Guard house |
| 7 North blockhouse | 22 Bake house |
| 8 South blockhouse | 23 Barrack Master's Quarters |
| 9 Hospital | 24 Cooking house |
| 10 Clover-leaf bastion | 25 Barracks stores |
| 11 Hospital-Master
Carpenter's Qtrs. | 26 Retaining wall |
| 12 Gun platform | 27 North west gun platform |
| 13 Barracks-Carpenter's
Shop-Stable | 28 North east gun platform |
| 14 Powder Magazine | 29 South west gun platform |
| 15 Stone barracks | 30 South east gun platform |
| | 31 Maypole |



- LEADING**
 (List of symbols and descriptions for leading features)
- HISTORIC STRUCTURES**
 (List of symbols and descriptions for historic structures)

DEPARTMENT OF INDUSTRY AND COMMERCE DEVELOPMENT
 CANADIAN HISTORIC SITES SYSTEM

**THE FORT
 AT
 COTEAU-DU-LAC, QUEBEC**

SCALE BY 1:50,000
 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000

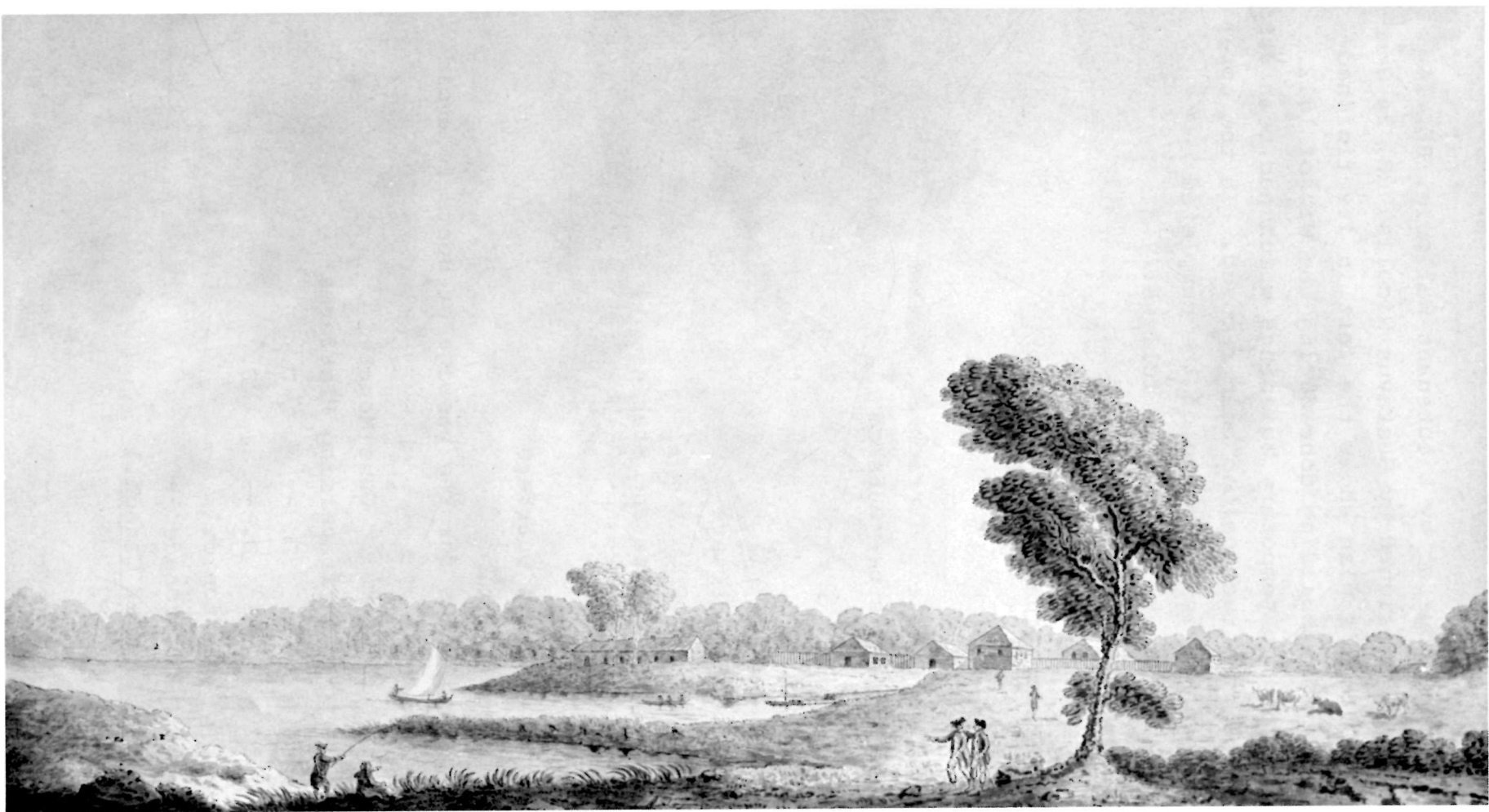
- 3 A model of the fort at Coteau-du-Lac. The model, based on historical and field data, represents the fort between 1815 and 1823. This model has been installed at Coteau-du-Lac to serve as an interpretive and explanatory aid to visitors. Because the model was constructed before all data were available, it is incomplete, if not inaccurate in some details. (Model by Cecil Gorman.)



- 4 The first St. Lawrence canal, 1781. From the original by Rex Woods, painted for the Confederation Life Collection of Historical Canadian Scenes. The British officer is Captain William Twiss, the builder of the canal. The artist had little direct evidence to support his interpretation of the canal in the 18th century. His depiction is based mainly upon later historical plans, inspection of the site, and comparative material. The drawbridge represents a typical 18th century bridge in England. Indirect evidence indicates that the bridge at Coteau-du-Lac in 1781 was a fixed bridge. There were buildings along the canal at the time which are not shown. The canal gates appear to be modelled on those at the Cascades at the turn of the century. (Metropolitan Life Insurance Company, Collection of Historical Canadian Scenes.)



- 5 A view of the blockhouse and barracks at Coteau-du-Lac, 1788, by Captain Henry Rudyerd, RE. This sketch was made soon after the end of the American Revolution and shows many of the buildings erected during the war. The blockhouse at the north end of the canal has disappeared by this time. Along both sides of the canal are the storehouses and the buildings which later served as hospitals and the master carpenter's quarters. The long low building on the point probably served as a barracks. (Public Archives of Canada.)



6 Plan of Coteau-du-Lac by Lieutenant Wallpole, RE, 14 September 1815, signed by Gustavus Nicolls, RE, 24 June 1816. Wallpole's plan shows the fort in its finished state after the building done during the War of 1812. By this time the temporary buildings which had been used during the construction had been removed. In the upper lefthand corner is a section of the completed earthworks. The key reads, as follows:

- 1 Stone Barrack splinter proof
- 2 Guard room
- 3 Powder magazine
- 4 Cooking house
- 5 Blockhouses
- 6 Officers Quarters Barrack Store room
- 7 Commissariat store Gunshed
- 8 Hospital
- 9 Bakehouse
- 10 Blockhouse
- 11 Commandants Quarters
- 12 Carpenters shop
- 13 Commissariat Store and Stables
- 14 Smithy
- 15 Barn
- 16 Barrack Masters Quarters
- 17 Engineers Dit^o.
- 18 Canal and Locks for the passage of Boats to avoid the Rapids

Guns Mounted

- 5 - 24 p^{drs} on Traversing Platforms
 2 - 18 p^{drs} -- D. -- D.
 1 - 12 p^{drs} -- D. -- D.
 1 - 8 p^{dr} Carronade
 1 - 32 p^{dr} Carronade --

(Public Archives of Canada.)

RIVER ST. LAWRENCE

PLAN of COTEAU du LAC

Reference

- 1 Stone Barrack splinter proof
- 2 Guard room
- 3 Powder magazine
- 4 Cooking house
- 5 Blockhouses
- 6 Officers Quarters Barrack store room
- 7 Commissariat store Gunshed
- 8 Hospital
- 9 Bakehouse
- 10 Blockhouse
- 11 Commandants Quarters
- 12 Carpenters shop
- 13 Commissariat Store and Stables
- 14 Smithy
- 15 Barn
- 16 Barrack Masters Quarters
- 17 Engineers
- 18 Canal and locks for the passage of Barks to avoid the Rapids.

Scale of the Plan
 1/4" = 24 Paces
 1/2" = 48 Paces
 3/4" = 72 Paces
 1" = 96 Paces
 1 1/4" = 120 Paces
 1 1/2" = 144 Paces
 1 3/4" = 168 Paces
 2" = 192 Paces

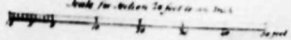
Scale 20 Feet to an Inch.



Section through A B



Scale for when Topography is used



RAPIDS

RIVER DELVISER

High Road from Montreal to Kingston

B (O)

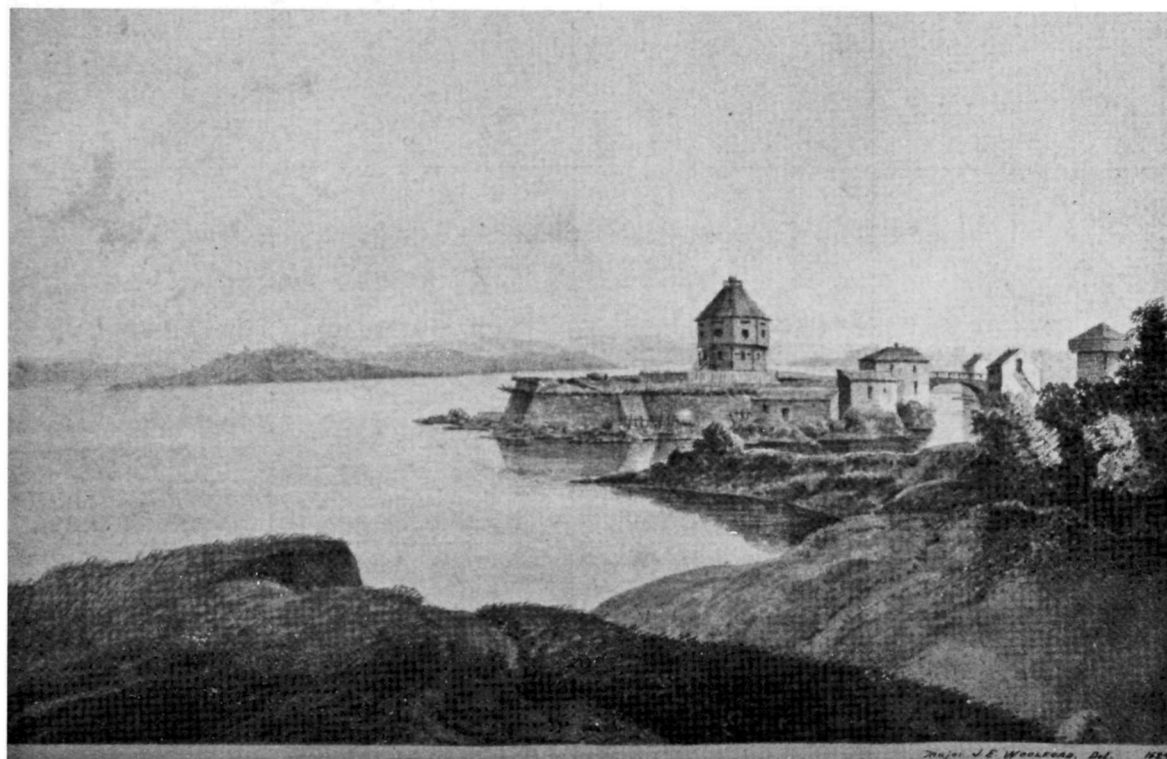
Boundary of Government Ground

Burying Ground

Done 24th June 1760.
Stiles
Lt. Col. in command

Eng. General

- 7 The fort at Coteau-du-Lac on the St. Lawrence River, 1824. Watercolour by J. Elliot Woolford. (Toronto Public Library.)



Maj. J. E. Woodruff, Del. 1859

- 8 The rapids and fort a Coteau-du-Lac, 1840, by P.J. Bainbrigge. This view of the fort from the south gives an impression of the post during its decline. By 1840 the octagonal blockhouse on the point had been destroyed and the south blockhouse at the mouth of the canal had disappeared. A cruder version of the watercolour, probably a copy, by F. MacBean is to be found in the museum of the province of Québec. (Public Archives of Canada.)



- 9 The much-decorated George Bell in later years. (George Bell, Rough Notes by an Old Solider During Fifty Years' Service [London: Day and Son, 1867], Vol. 1 frontispiece.)



10 Coteau-du-Lac, general plan dated 24 September 1823. This plan was drawn by E.W. Durnford to accompany his plans of individual buildings, which are also included in this report. The date of this plan is the last date used in the construction of the model developed for interpretive purposes. The waterline on the St. Lawrence side is that of this historic period. The present, lower waterline is the result of damming upstream on the St. Lawrence. The Delisle River now inundates the property on the north side of the fort. On the original is the following legend:

- 1 Blockhouse.
 - 2, 3 Blockhouses.
 - 4 Cooking house.
 - 5 Guard house.
 - 6 Powder Magazine.
 - 7 Bake house.
 - 8 Store Barrack.
 - 9 Temporary Officers Quarters.
 - 10 Barrack Masters Stores. Gun Shed.
 - 11 Commissariat Officers Quarters.
 - 12 Commandants Quarters.
 - 13 Royal Engineers Officers Quarters.
 - 14 Carpenters Shop.
 - 15 Black Smiths Shop.
 - 16 Commissariat Stores & Stables.
 - 17 Barn.
 - 18 Cannal [sic] and Locks for the Passage of Boats to avoid the Rapids,
- a b c d e f g a Boundry [sic] of the Land Purchased by Govern.^t

(Public Archives of Canada.)

COTEAU du LAC.

Plate 1

(Q) 11

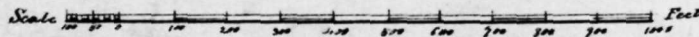


References

- 1 Blockhouse.
 - 2 5 Blockhouses.
 - 4 Cooking house.
 - 5 Guard house.
 - 6 Powder Magazine.
 - 7 Bake house.
 - 8 Store Barrack.
 - 9 Temporary Officers Quarters.
 - 10 Barrack Masters Stores Gun Shed.
 - 11 Commissariat Officers Quarters.
 - 12 Commandants Quarters.
 - 13 Royal Engineers Officers Quarters.
 - 14 Carpenters Shop.
 - 15 Black Smiths Shop.
 - 16 Commissariat Stores & Stables.
 - 17 Barn
 - 18 Canal and Locks for the Passage of Boats to
and the Rapids,
- a b c d e f g h i j k l m n o p q r s t u v w x y z
- Boundary of the Land Purchased by Govern



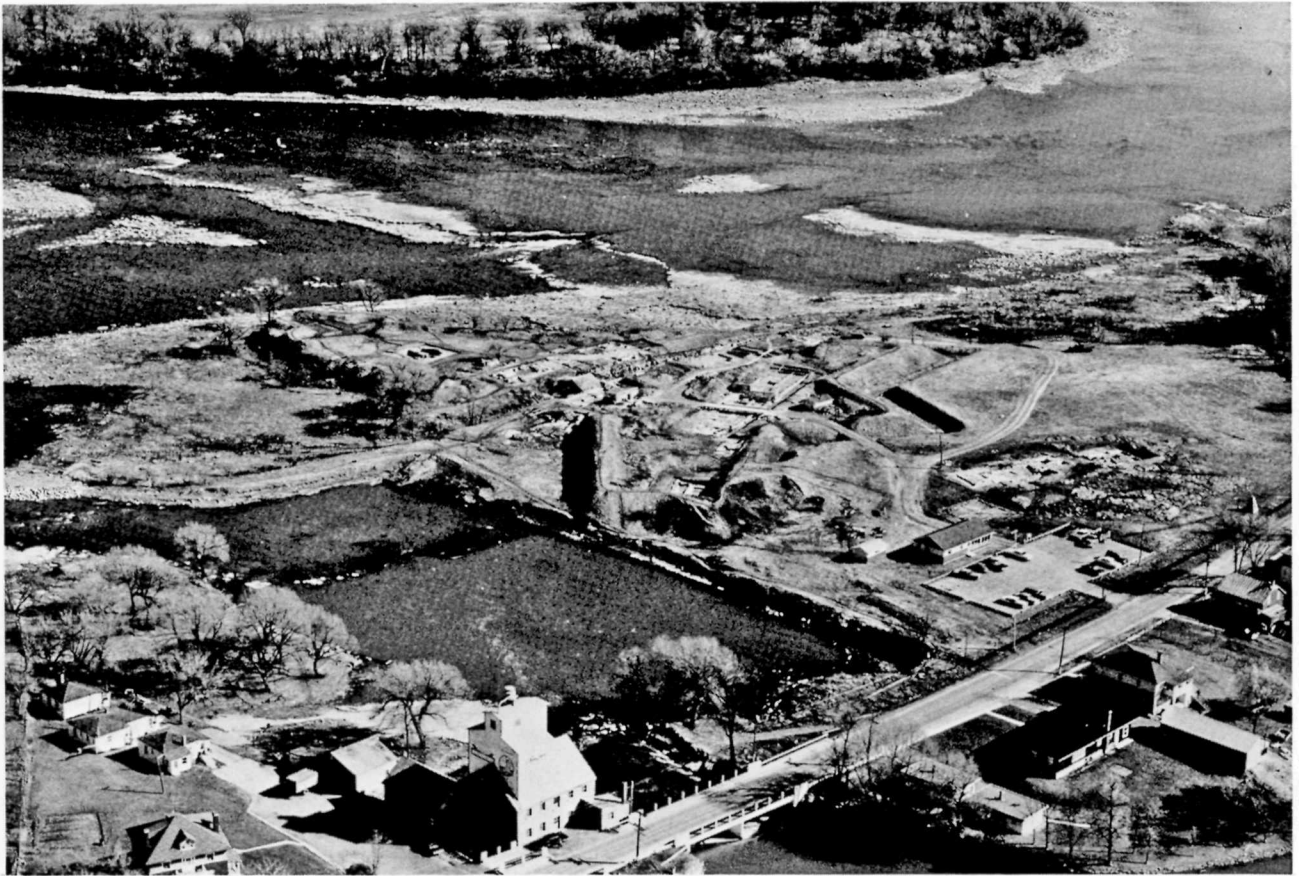
*All Buildings of the
Camp for the
River Dolset
1858*



- 11 The fort at Coteau-du-Lac, aerial view before excavation. The St. Lawrence River and part of Prisoner's Island are visible in the upper right (south) of the photograph. Note the rapids between the fort and the island. The water level was much higher during the historic period. To the left of the photograph are the Delisle River and the modern village of Coteau-du-Lac. (Department of Mines and Technical Surveys.)



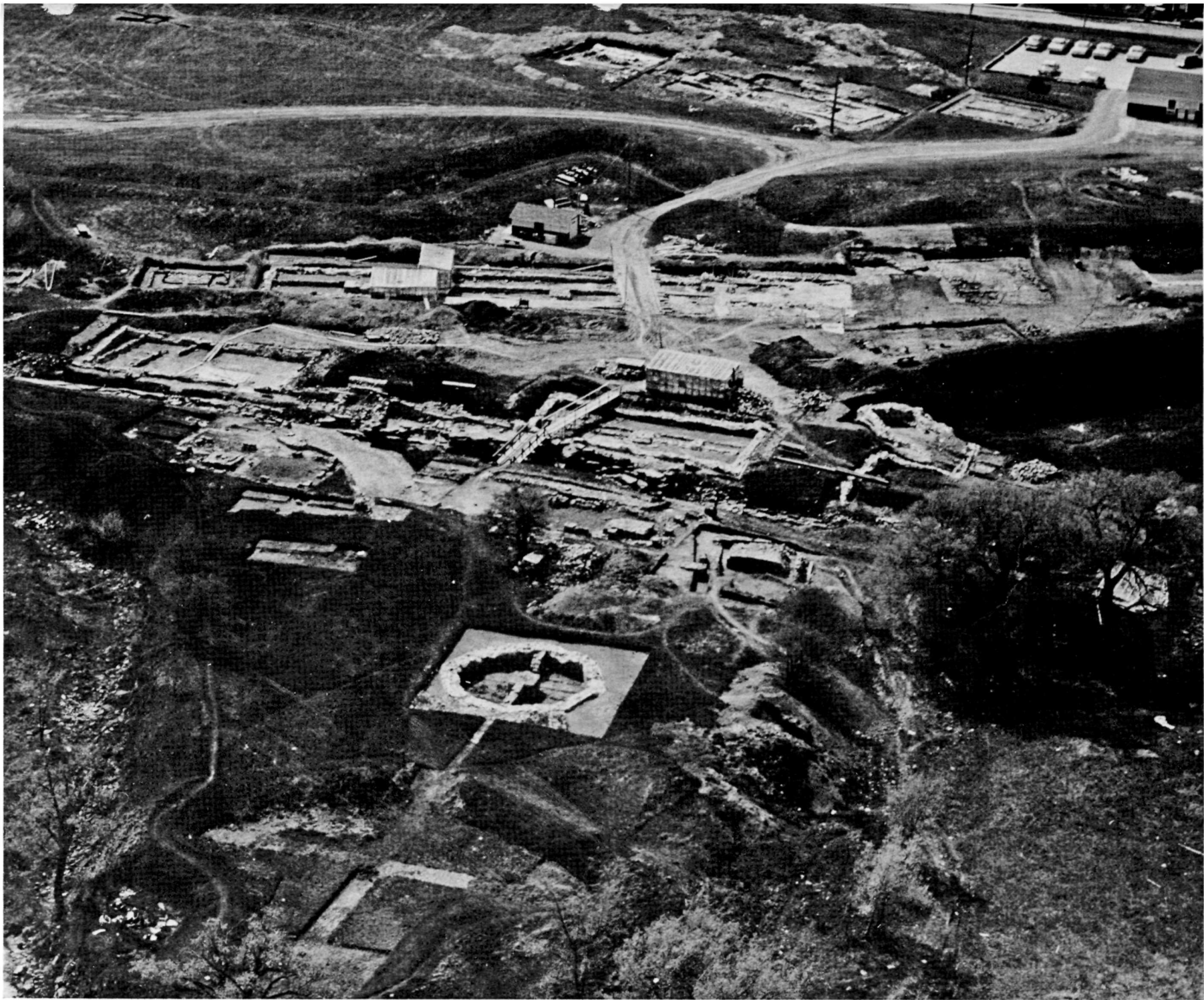
- 12 The fort at Coteau-du-Lac, aerial photo of the site taken during excavation. In the background, to the southeast, are the St. Lawrence River, Coteau Rapids and Prisoner's Island. The Deslisle River is in the foreground.



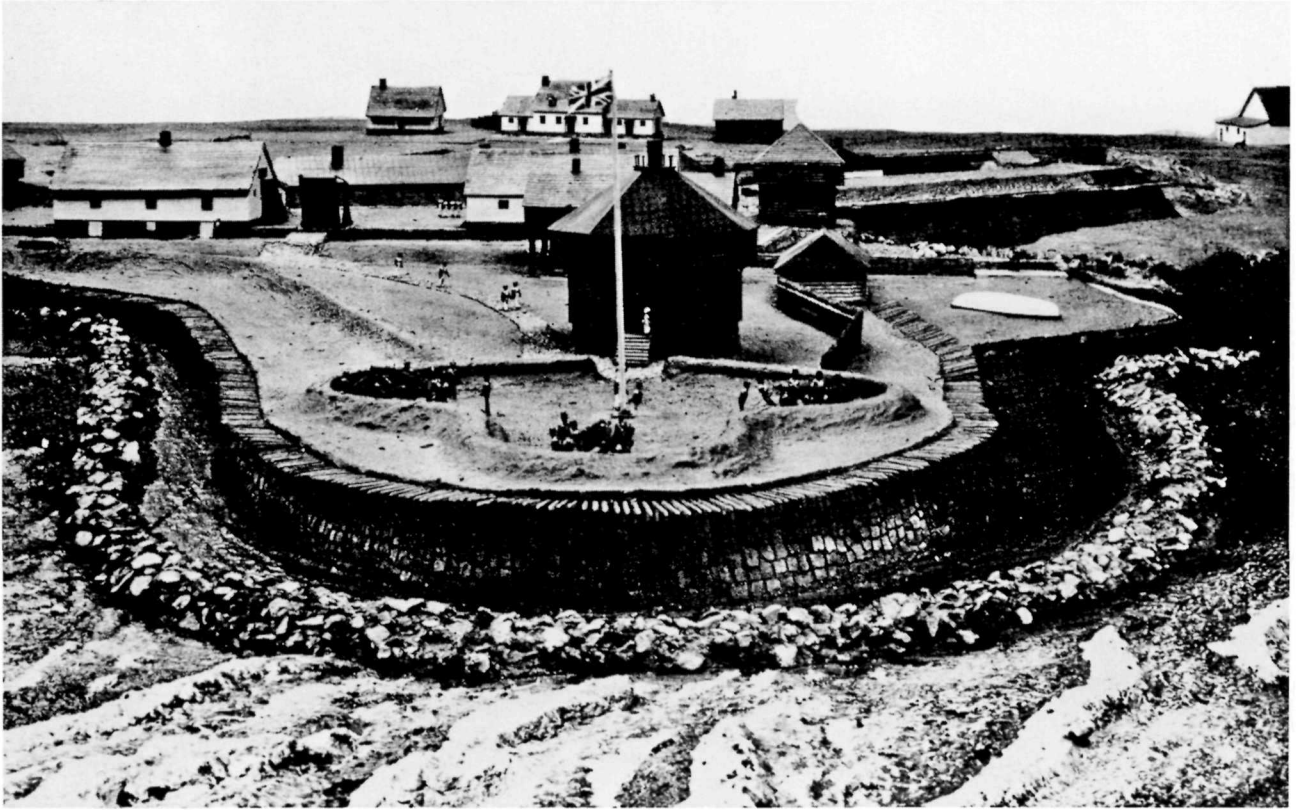
13 Aerial view of Coteau-du-Lac, looking north. An early stone quarry is visible in the foreground. The later Soulanges Canal runs along the upper part of the photograph.



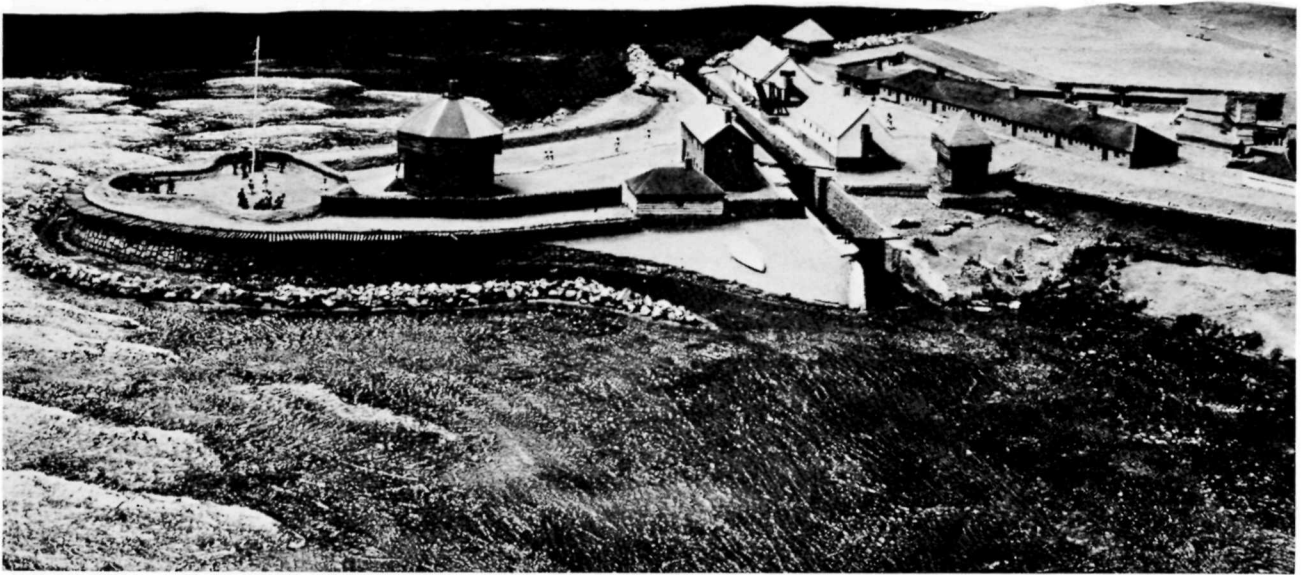
- 14 The fort at Coteau-du-Lac, aerial view of the excavations, looking west. The cloverleaf bastion and octagonal blockhouse are in the foreground and the commanding officer's quarters, church and carpenter's shop in the baakground. The canal and associated buildings are at centre.



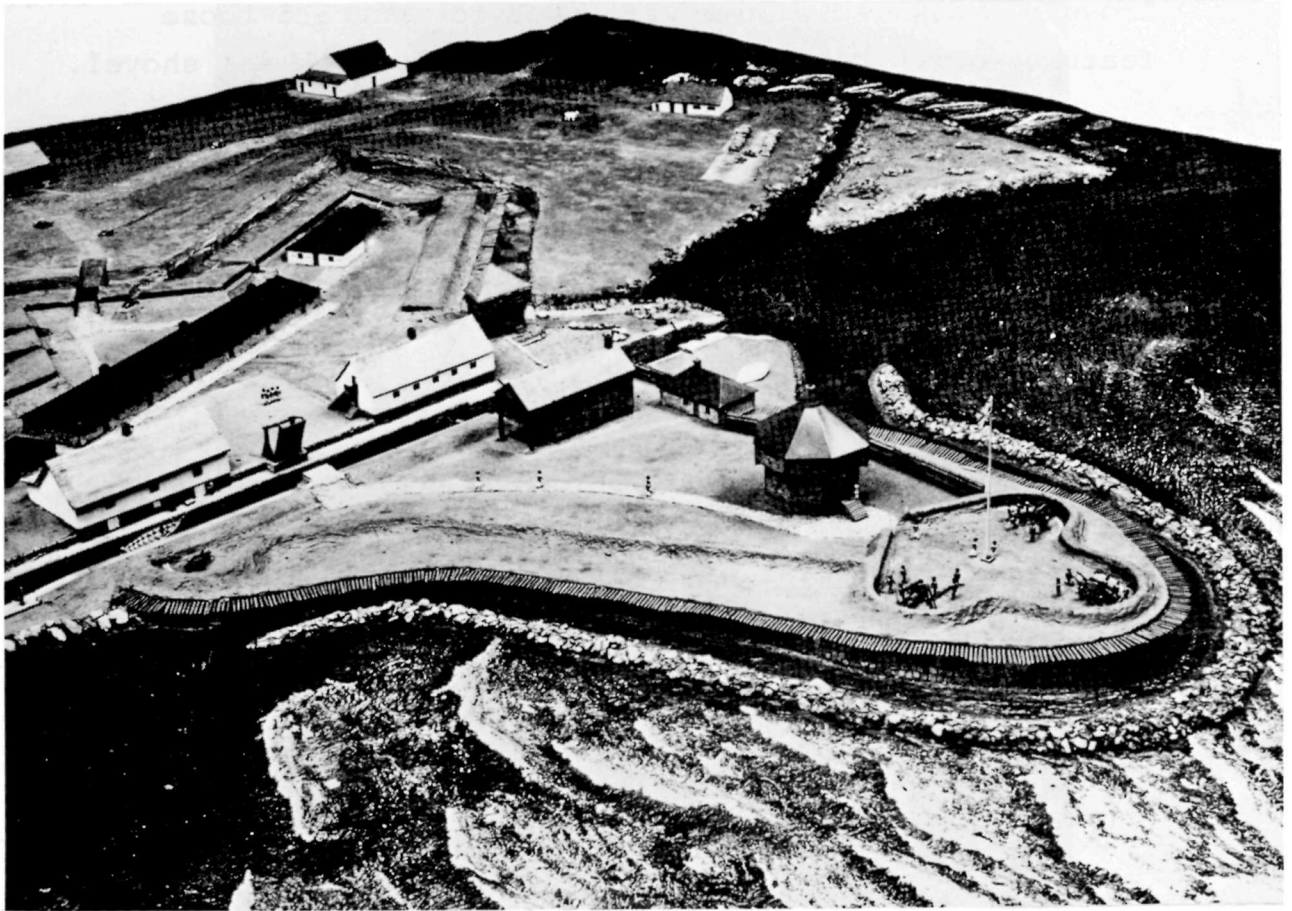
- 15 Model of the fort, view from the southeast, showing the stone escarp and fraising. The latter is too long as portrayed in the model. The earthworks are not as fully formed or as high as they were in 1815-23 and, on the west side, the escarp should be closer to the earthworks. (National Film Board.)



16 Model, view from the northeast, showing the lower entrance to the canal. (National Film Board.)



17 Model, view from the south. (National Film Board.)

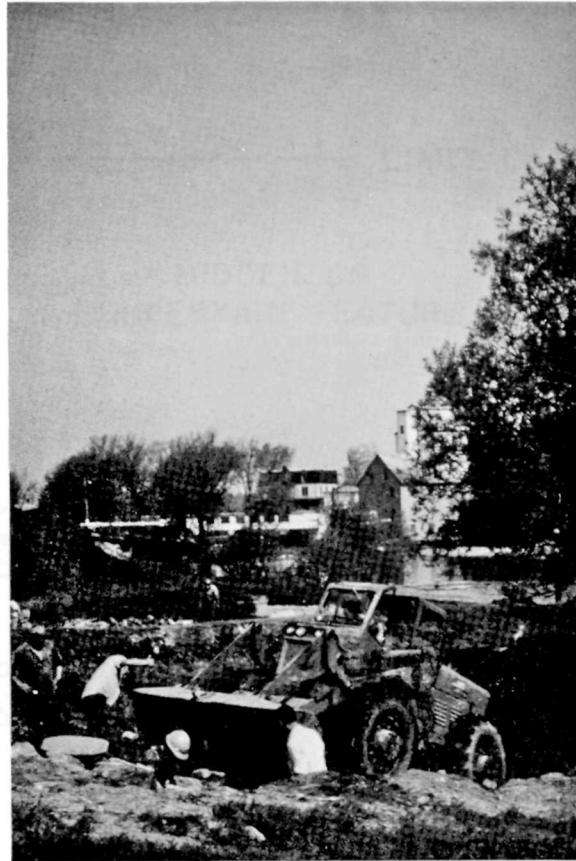


- 18 Excavation techniques. Workers cleaning the walkway on the east side of the commanding officer's quarters. Trowels and whisk brooms were used to excavate those features which could not be uncovered by pick and shovel.
- 19 Excavating the cellar of the commanding officer's quarters with pick and shovel.
- 20 Excavating the north end of the canal with a backhoe. This machine was used in the canal to excavate below the prevailing water table.



21 A payloader and dump trucks were used to remove dirt from the excavation area.

22 Two dump-cars and a flatbed car were used successfully in the excavation of the canal. Note the portable shelter extended over the excavation area.



- 23 These symbols are used in drawings throughout this report to identify and describe various architectural features. (Symbols by A.E. Wilson.)

DRAWING SYMBOLS

----- LIMIT OF EXCAVATION

HIDDEN OR
UNCERTAIN FEATURE

.....

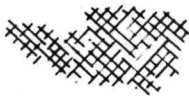
ASSUMED
FEATURE



STONES



BRICKS



MORTAR
(IN PLAN)



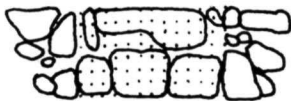
MORTAR
(IN SECTION)



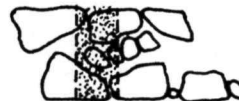
WOOD
(IN PLAN)



WOOD
(IN SECTION)



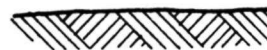
DOORWAY



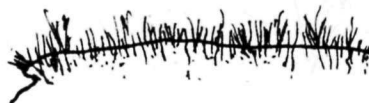
DRAIN PATH



BEDROCK EDGE
(IN PLAN)



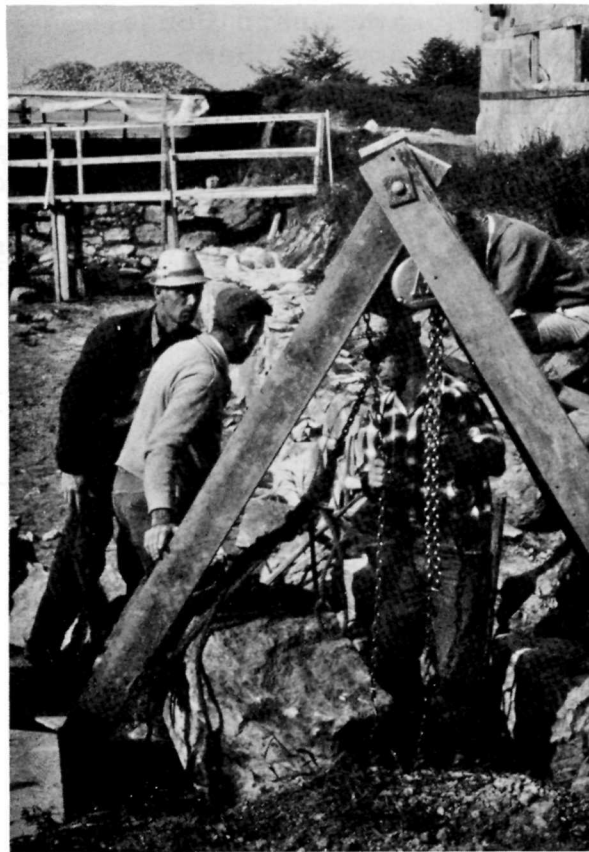
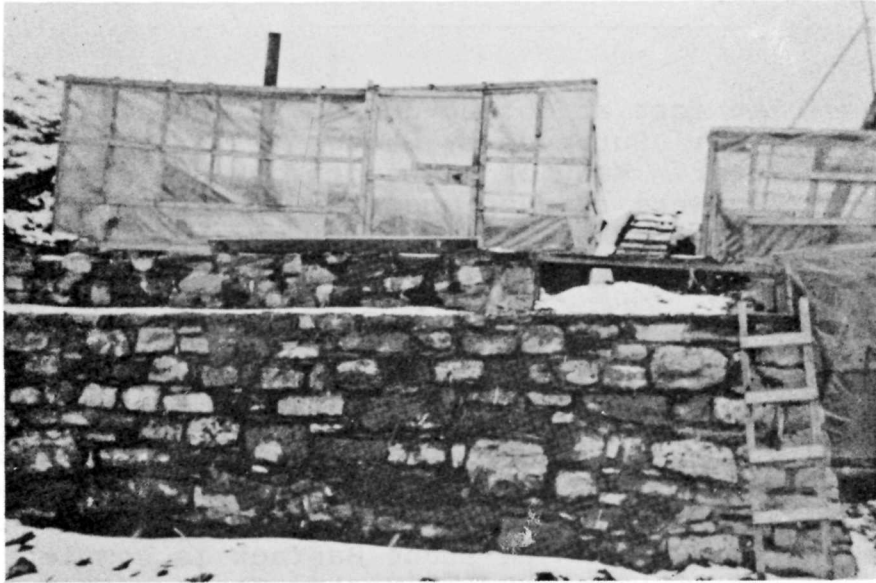
BEDROCK EDGE
(IN SECTION)



TURF

24 Consolidation and reconstruction. During the winter months, much of the masonry work was consolidated under the protection of temporary heated polyethelene-covered shelters like those shown over the foundation of the south blockhouse.

25 A-frames and chain hoists were required to move large foundation stones.

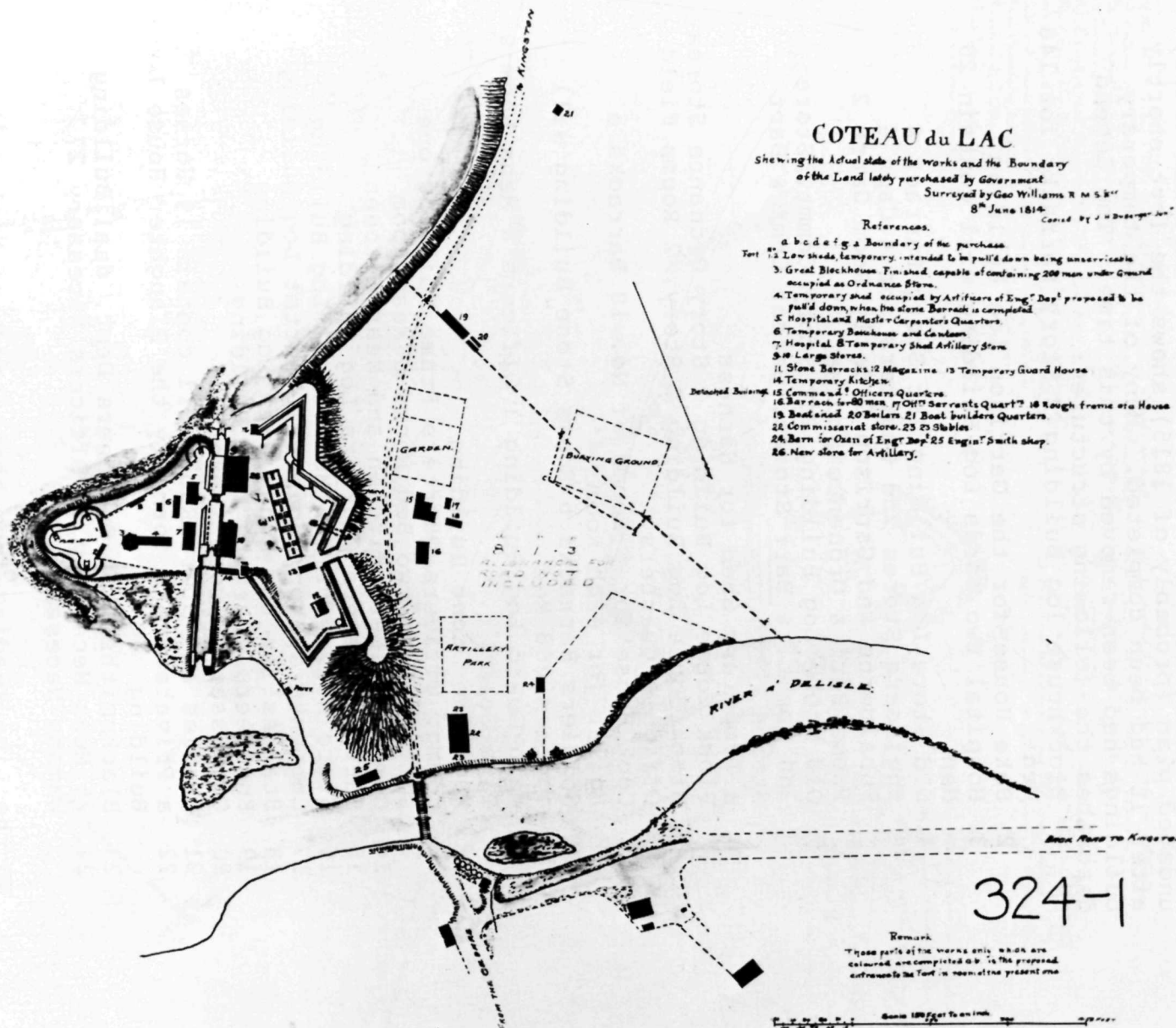


26 Plan of the fort at Coteau-du-Lac, 8 June 1814, during construction. Surveyed by George Williams, copied by J.H. Duberger. Many of the temporary buildings shown on the plan were removed when the fort was completed. The legend reads, as follows:

Fort	No.	
	1.2	Low sheds, temporary, intended to be pull'd down being unservicable
	3.	Great Blockhouse. Finished, capable of containing 200 men under Ground occupied as Ordnance Store
	4.	Temporary shed occupied by Artificers of Eng. Dep. proposed to be pull'd down, when the stone Barrack is completed.
	5.	Hospital and Master Carpenter's Quarters.
	6.	Temporary Bakehouse and Canteen.
	7.	Hospital. ' Temporary Shed Artillery Store.
	9.10	Large Stores.
	11.	Stone Barracks. 12 Magazine. 13 Temporary Guard House.
	14.	Temporary Kitchen.
Detached Buildings	15.	Command. Officers Quarters.
	16.	Barrack for 80 men. 17 Off.. Servants Quart.. 18 Rough frame of a House
	19	Baot shed 20 Boilders. 21 Boat builders Quarters
	22.	Commissariate store. 23 23 sic Stables.
	24.	Barn for Oxen of Eng. Dep. 25 Engin. Smith shop.
	26.	New Store for Artillery.

Remark.

Those parts of the works only which are coloured are completed a.b. is the proposed entrance to the Fort in room of the present one. (Public Archives of Canada.)



COTEAU du LAC

Shewing the Actual state of the works and the Boundary
of the Land lately purchased by Government
Surreyed by Geo Williams R M S & C^o
8th June 1814. Copied by J. H. Deane Esq^r

References.

- a b c d e f g a Boundary of the purchase
- Tent 15 Low shade, temporary, intended to be pull'd down being unserviceable
- 3. Great Blockhouse Finished, capable of containing 200 men under Ground occupied as Ordnance Store.
- 4. Temporary shed occupied by Artificers of Eng^r Dep^t proposed to be pull'd down, when the stone Barrack is completed.
- 5. Hospital, Master Carpenters Quarters.
- 6. Temporary Storehouse and Canteen
- 7. Hospital, 8. Temporary Shed Artillery Store
- 9. 4 Large Stores.
- 11. Stone Barracks 12 Magazine 13 Temporary Guard House
- 14. Temporary Kitchen
- 15. Command^r Officers Quarters
- 16. Barrack for 80 men 17. Officers Quarters 18. Rough frame etc House
- 19. Boat shed 20. Boilers 21. Boat builders Quarters
- 22. Commissariat store 23. 20 Stables
- 24. Barn for Oxen of Eng^r Dep^t 25. Engin^r Smith shop
- 26. New store for Artillery.

324-1

Remark
Those parts of the works only which are coloured are completed a b c is the proposed entrance to the Fort in case of the present one

Scale 100 Feet To an Inch

COTEAU DU LAC FORT. 1814.

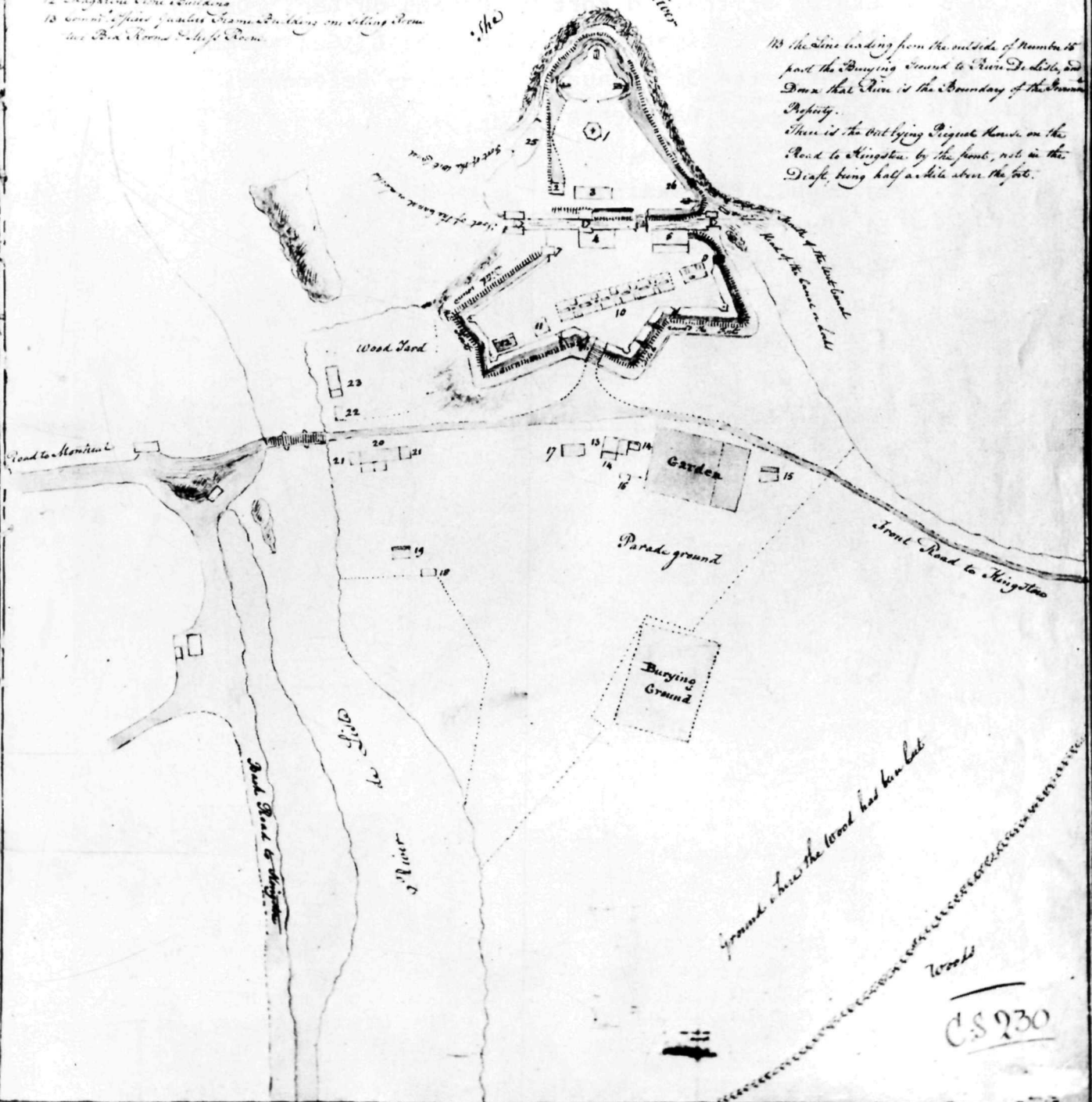
- 27 "Sketch and Description of the Buildings in charge of the Barrack Department at Coteau do Lac." This crude, undated plan (probably of 1815) shows the fort shortly after it had been completed. Many of the temporary buildings had been removed by this time. The legend describes the following structures:
- "N. 1 Blockhouse log Building 2 Story Barracks for 148 Men
 - 2 Bake House for the Garrison Log Building
 - 3 Hospital two Wards Log Building will contain 20 Men
 - 4 Old Store Log Building 1st Story Barrack & Engineers Stores 2nd Quarters for 4 Caps 6 Subalterns and Garrison Orderly Room Garrt 2 Rooms Barr & Ordnance Stores
 - 5 Old Store Log Building 1st Story Commt. Store 2nd Commt. & Barr Stores, Garrat Comt & Barr Stores
 - 6 a Temporary Shed for Harness
 - 7 Block House Log Building 2 Story Ordnance Stores
 - 8 Block House Log Building 2 Story, 2 Rooms Field Officers Quarters.
 - 9 Cook House for 6 Rooms of No. 10 Barracks a Boiler for each Room
 - 10 Soldiers Barracks 6 Rooms Stone Building will contain 288 Men
 - 11 Main Guard Log Building 1 Officers & Mens Room & five Cells
 - 12 Magazine Stone Building
 - 13 Commg. Officers Quarters Frame Building one sitting Room two Bed Rooms & Mess Room
 - 14 Commg Officers Kitchen and Mess Kitchen
 - 15 Barrack Masters Quarters Log Building
 - 16 Store House for the Mess small Log Building
 - 17 Carpenters Shop Engineer Departmt Log Building
 - 18 Stables for the Kings Oxen Log Building
 - 19 Engineers Quarters Deal Building
 - 20 Commissarys Store 1 Story
 - 21 Stables and Store Room will contain 19 Horses
 - 22 a Private Store formerly the Slaughter House Log Building
 - 23 Blacksmiths Shop Engineers Dept. deal Building
 24. 25 Mens Necessary 25 Officers Necessary 27 Womens Necessary

NB the Line leading from the outside of Number 15 past the Burying Ground to River Delisle, and Down that River is the Boundary of the Governmt. Property. There is the outlying Picquet House on the Road to Kingston by the front, not in the Draft, being half a Mile above the fort." (Public Archives of Canada.)

Plan and description of the Buildings &c. of the Barrack Dep. situated at Colaba de Cal.

- 1. Black stone Log Building 2. Log Barracks for 148. Men
- 3. Base house for the Garrison Log Building
- 4. Hospital building 200 Bedding will contain 20. Men
- 5. Artillery Barracks 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 841. 842. 843. 844. 845. 846. 847. 848. 849. 850. 851. 852. 853. 854. 855. 856. 857. 858. 859. 860. 861. 862. 863. 864. 865. 866. 867. 868. 869. 870. 871. 872. 873. 874. 875. 876. 877. 878. 879. 880. 881. 882. 883. 884. 885. 886. 887. 888. 889. 890. 891. 892. 893. 894. 895. 896. 897. 898. 899. 900. 901. 902. 903. 904. 905. 906. 907. 908. 909. 910. 911. 912. 913. 914. 915. 916. 917. 918. 919. 920. 921. 922. 923. 924. 925. 926. 927. 928. 929. 930. 931. 932. 933. 934. 935. 936. 937. 938. 939. 940. 941. 942. 943. 944. 945. 946. 947. 948. 949. 950. 951. 952. 953. 954. 955. 956. 957. 958. 959. 960. 961. 962. 963. 964. 965. 966. 967. 968. 969. 970. 971. 972. 973. 974. 975. 976. 977. 978. 979. 980. 981. 982. 983. 984. 985. 986. 987. 988. 989. 990. 991. 992. 993. 994. 995. 996. 997. 998. 999. 1000.

- 1. Comm. Officers Quarters and 2. High Kitchen
- 3. Barrack & Messes Quarters & Cook Building
- 4. High House for the High & Small Log Buildings
- 5. Captains High Quarters & Depots Log Building
- 6. High House for the High & Small Log Building
- 7. Engineers & Artillery Small Building
- 8. Comm. Officers Store & Day
- 9. Messes and Cook Rooms with contain 14 Messes
- 10. a Store Store formerly the High House Log Building
- 11. Blacksmiths Shop Engineers Shop & Cook Building
- 12. Messes Messery, 13. Officers Messery, 14. Womens Messery



15. The line leading from the outside of number 15
 past the Burying Ground to River Ditch, &
 down that River is the Boundary of the Garrison
 Property.
 There is the Well lying beyond the House on the
 Road to Kingston by the front, not in the
 Draft, being half a mile above the gate.

CS 230

28 "Sketch of the old Fort at Coteau du Lac. Drawn to accompany Estimate ordered by the L^t Gen^l Comm^{ds} by letter dated 3rd January. 1838 -- Reference.

a.a. New cut Banquette

b.b. Berm fraized.

bq. cghi. Palisading.

fd. Barricades.

qc. bc. Abbatis.

Sign'd T. Foster

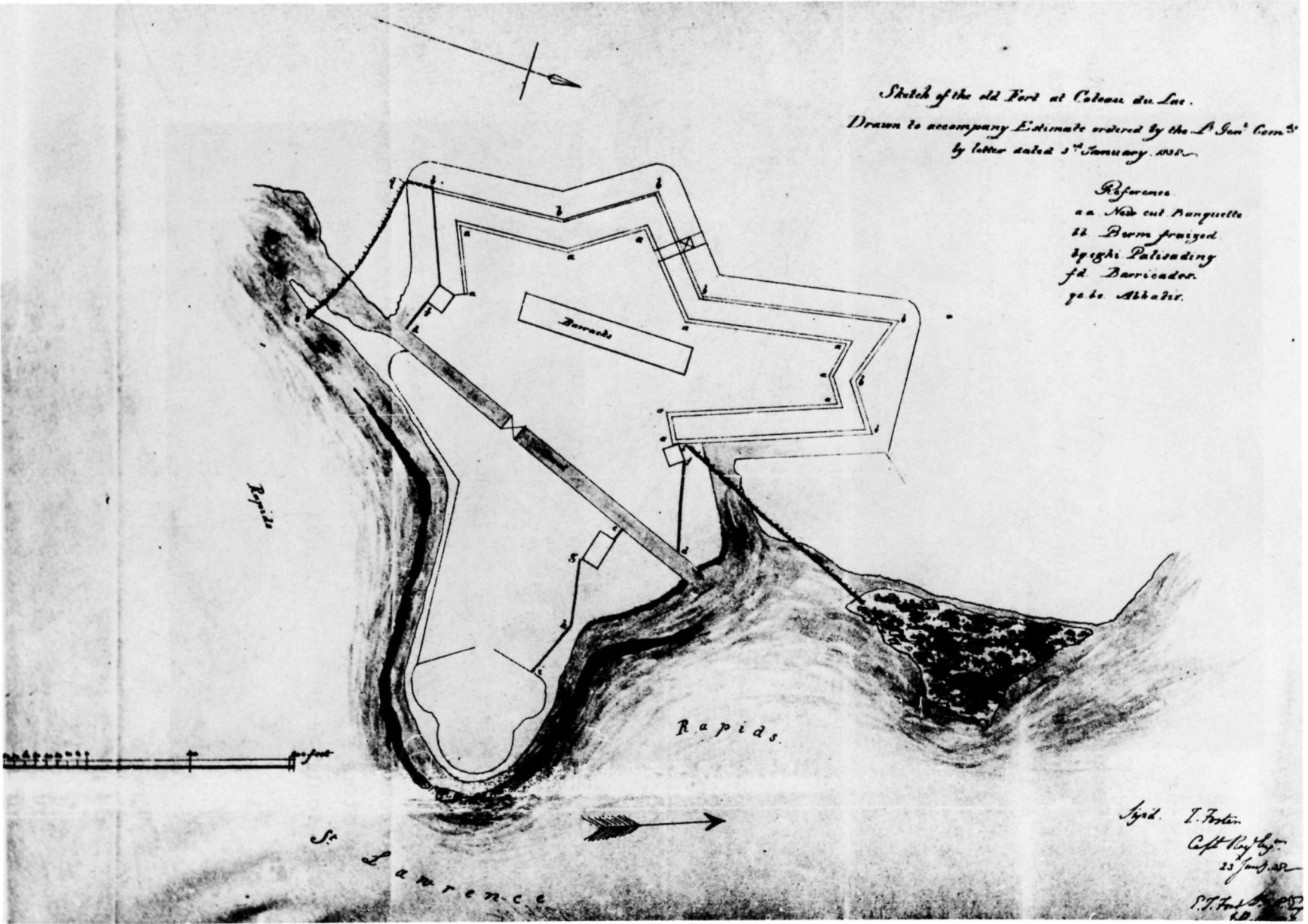
Capt Roy^l Eng^{rs}

23 Jan^v 38 --"

(Public Archives of Canada.)

Sketch of the old Fort at Chateau du Lac.
 Drawn to accompany Estimate ordered by the Lt. Genl Comdr
 by letter dated 5th January. 1782.

Reference
 a a New cut Rampart
 b b Boom fringed
 by high Palisading
 f f Barricades
 g g Abatis.

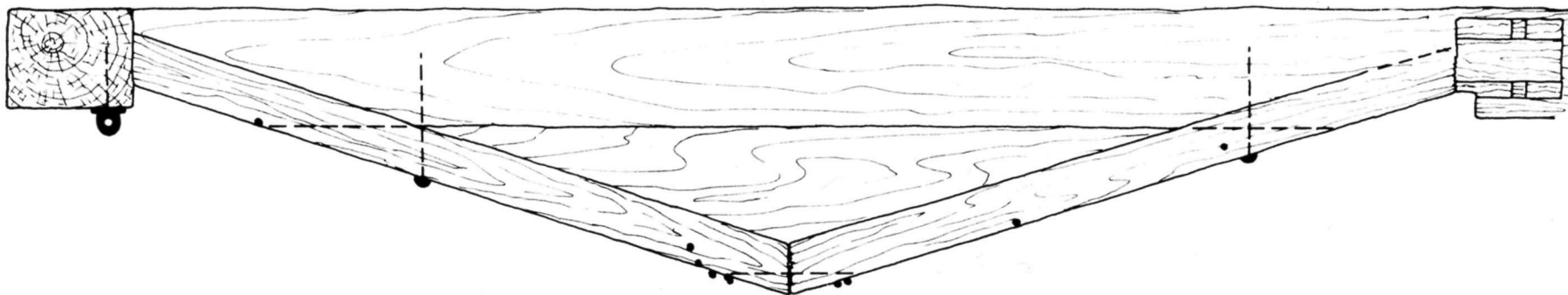


29 South canal gate after excavation, looking west. The eastern leaf of the lock gate, the jamb and the gate sill are visible. Each part of the gate leaf was tagged and numbered to facilitate reconstruction.

30 The gate sill at the south end of the canal after removal of the gate. The well-faced and squared stones of the wall and the altered bedrock to the south are also visible.



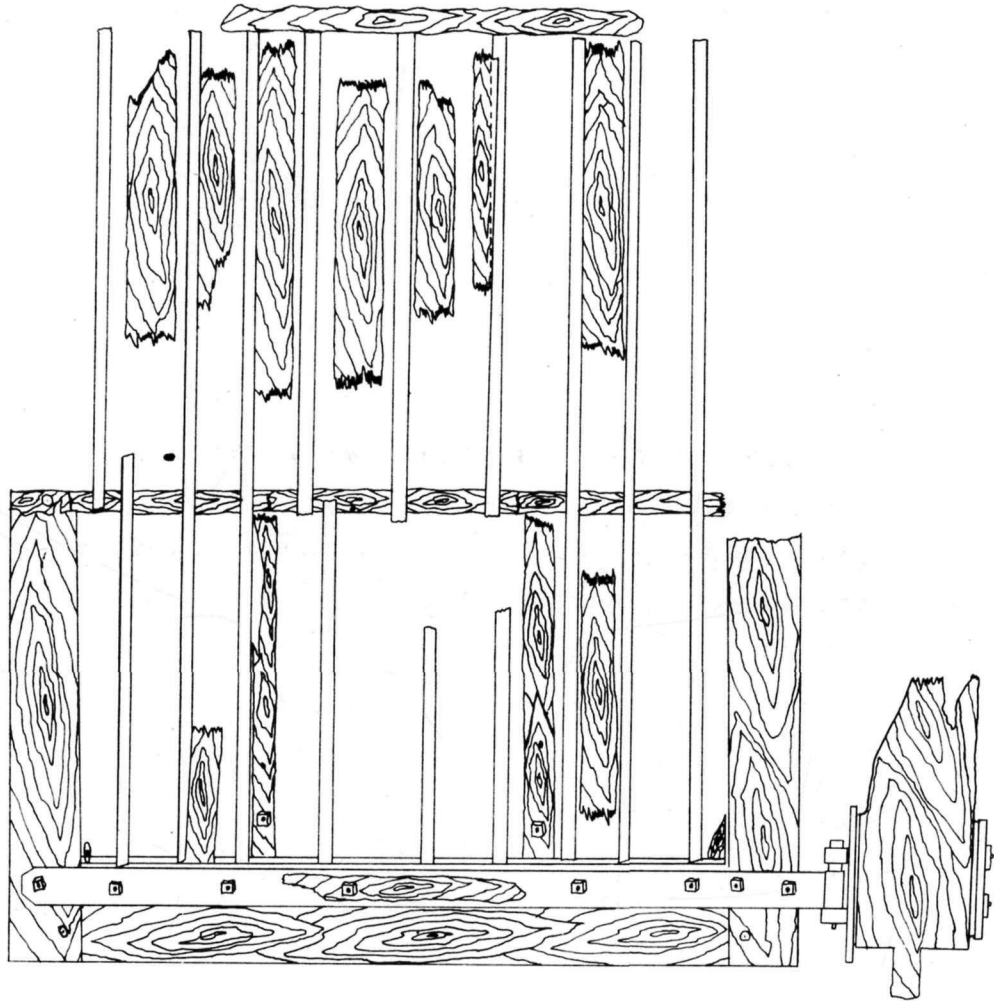
- 31 A detailed plan of the south gate sill. This and the north sill are formed of three component parts, the former with a plank stripping nailed along the top of the upstream edge. The two major components of the sill are joined by two long drift pins. Both ends of the sill are morticed. The remains of a jamb were found tenoned into the west end of the sill. (Drawing by A.E. Wilson.)



327

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CANAL - STRUCTURE NO. 1		
PLAN OF SOUTH SILL		
DRAWN BY A. E. W.	SCALE 0 1/2 1 2 3 FT.	DATE FEB. 1967

- 32 The south side of the east leaf of the south canal gate illustrating the wooden and metal remnants.
(Drawing by Michel Lapierre.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT			
CANADIAN HISTORIC SITES DIVISION			
FORT COTEAU-DU-LAC			
CANAL - STRUCTURE NO. 1			
SOUTH GATE			
DRAWN BY	SCALE	FT.	DATE
M. L.	0 1/2 1 2 3		DEC. 1965

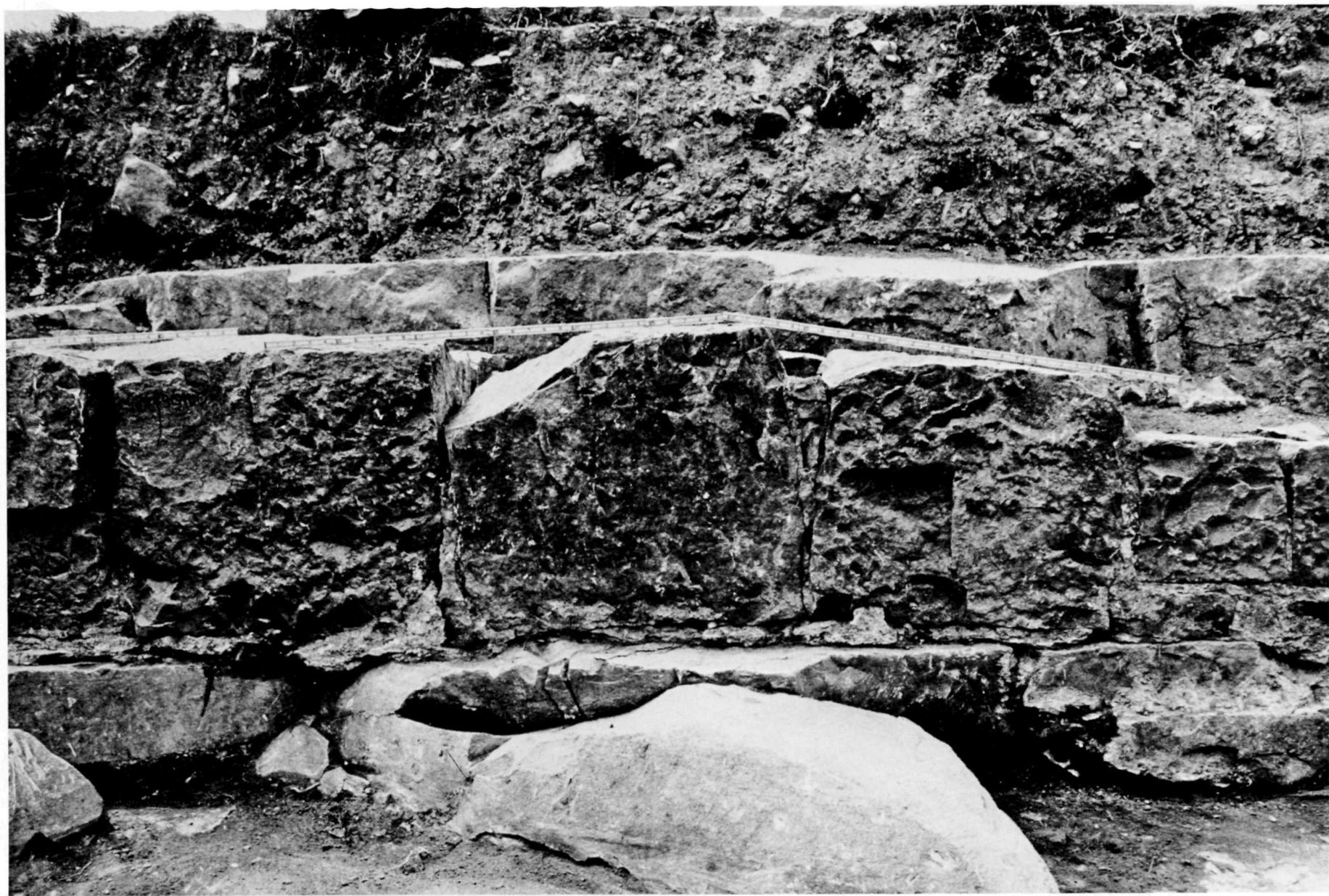
- 33 A section of the west canal wall near the south gate showing a basal course of well-faced and dressed stone laid on a section of bedrock. The vertical striations in the bedrock are due to drilling for blasting.



34 A section of the west canal wall at the south gate showing the well-squared and faced masonry forming the gate pier, the junction of the sill and the masonry, and the gate recess in the pier. The stone rubble in the immediate background provided fill for the pier. The masonry feature in the background to the left is the end of the retaining wall leading from the south blockhouse platform toward the canal.



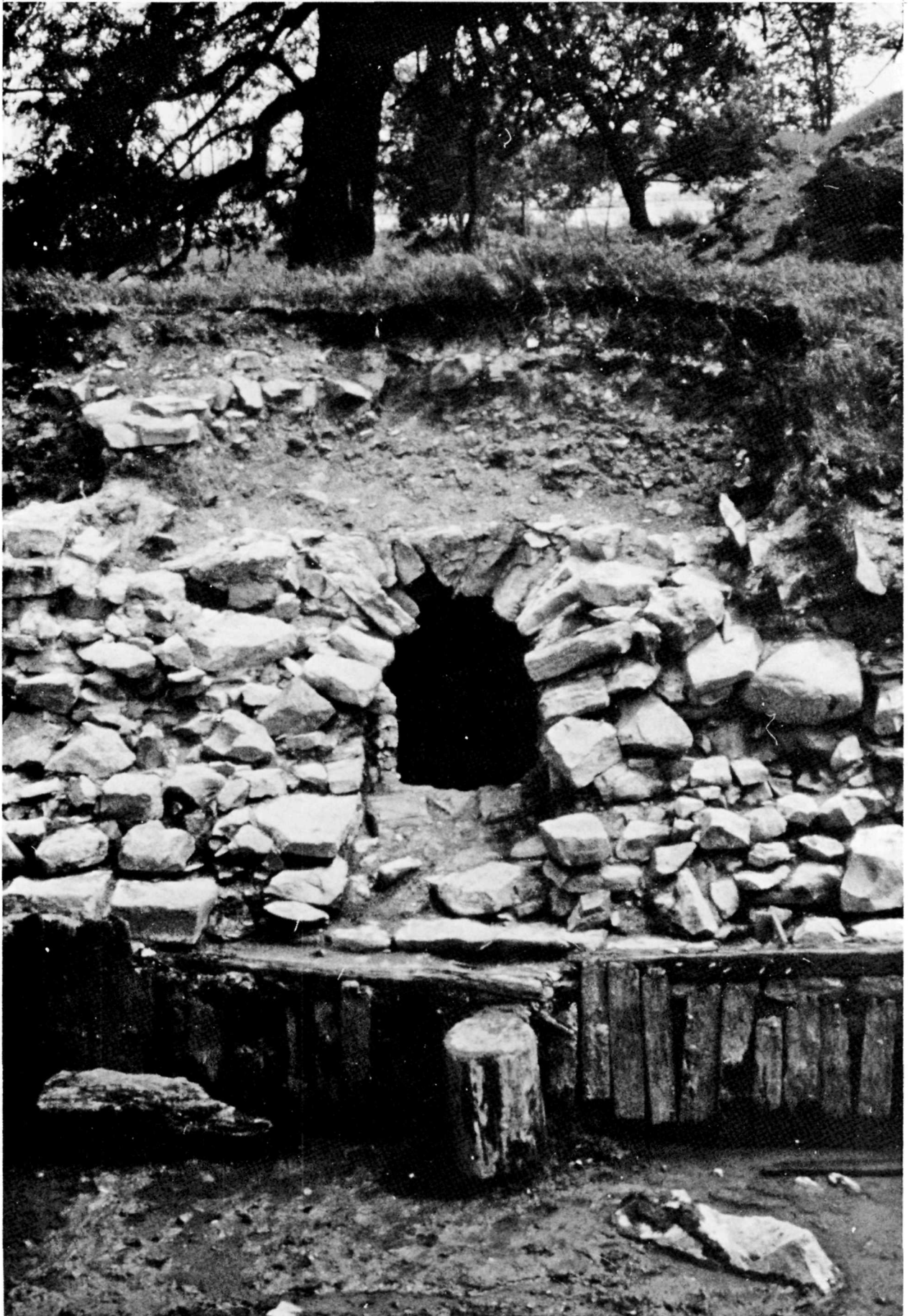
35 A section of the west wall showing masonry more crudely squared and faced than that associated with the lock gates.



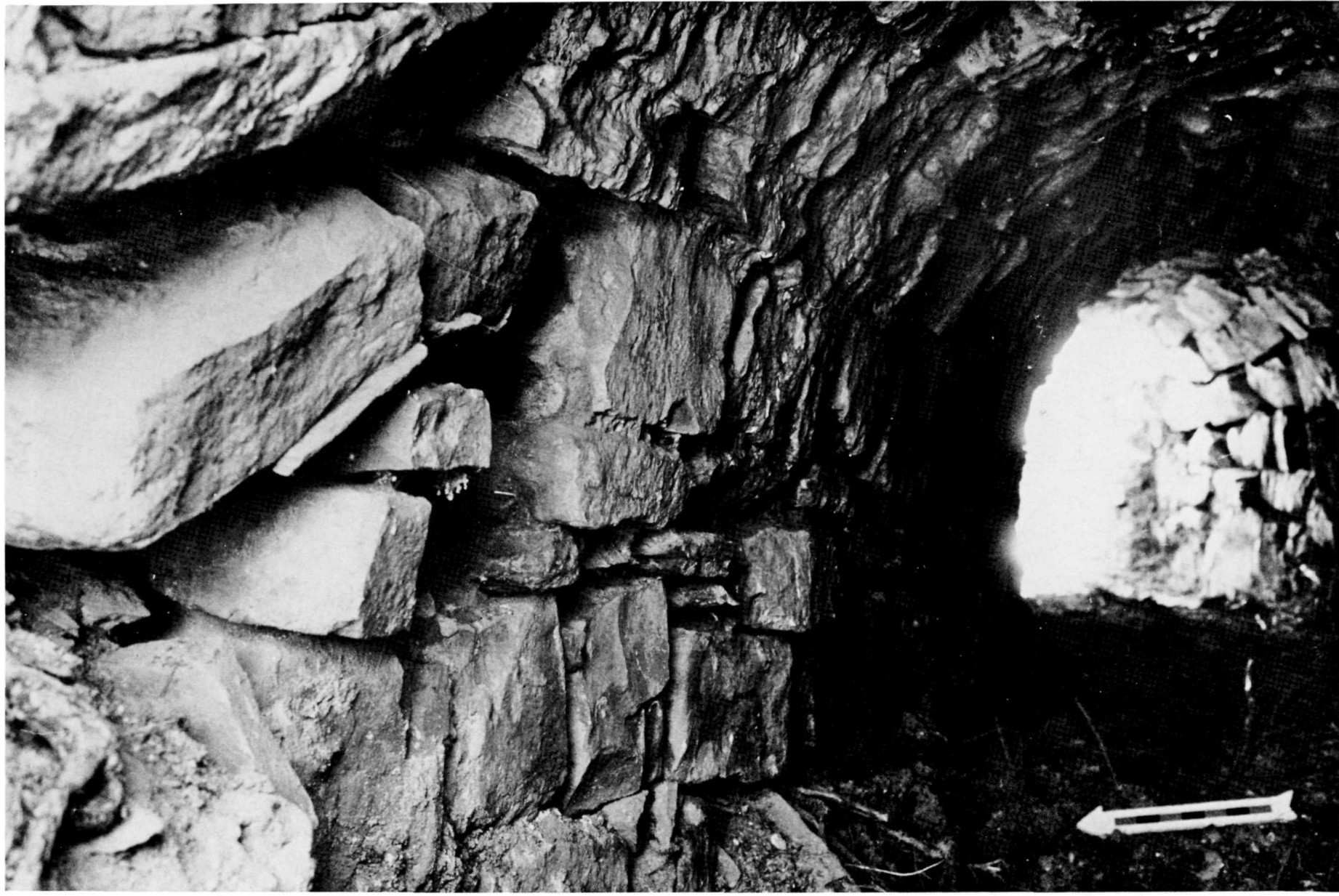
36 The north lock gate showing the triangular sill and the apron.



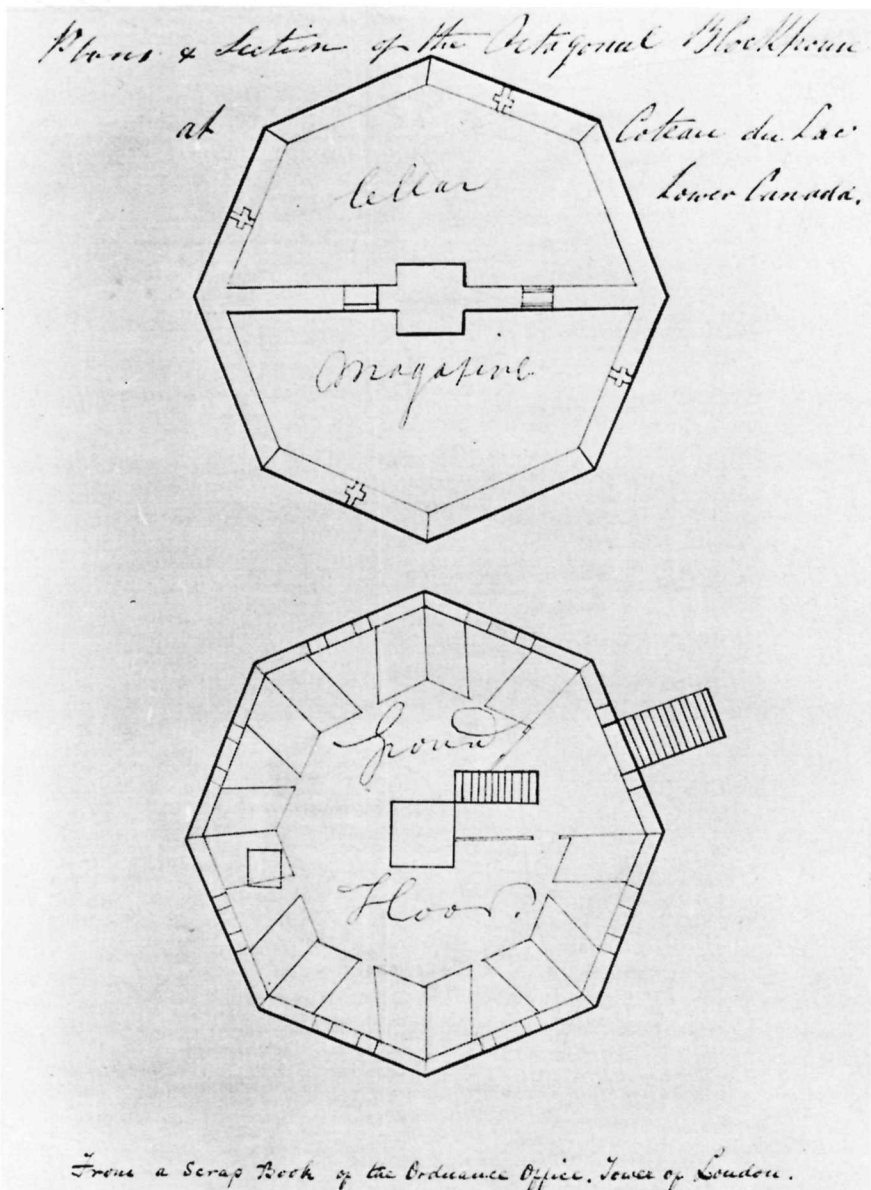
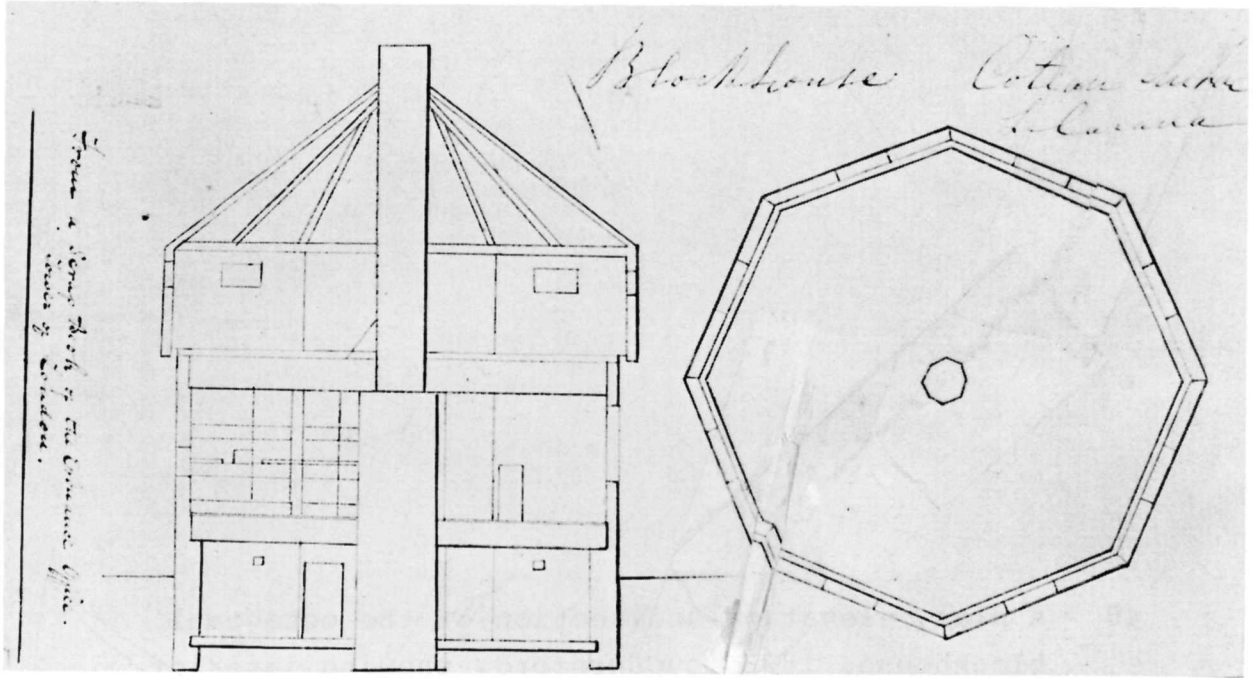
- 37 A section of the east wall showing the entrance to the drainage tunnel and the vertical plank lining of the north lock of the canal. In the foreground is one of the two round posts found at opposite sides of the canal.



38 Interior of the drainage tunnel looking east, showing the masonry of the north wall and a section of the vault.

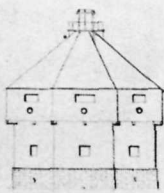


- 39 Plan and section of the octagonal blockhouse "From a Scrap Book of the Ordnance Office. Tower of London" showing all three levels. (Public Archives of Canada.)

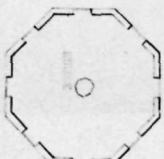


- 40 A plan, elevation and section of the octagonal blockhouse, 1823, by Durnford, showing interior details of all three levels. (Public Archives of Canada.)

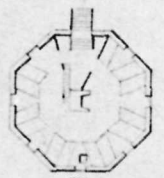
Coteau du Lac
N°1 Block house - extolli, enble repair
Scale 20 feet to an Inch



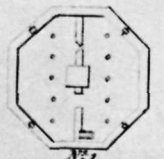
N°1



N°2



N°3



N°4



N°5



*Edmund J. Lal
Commandant
Canada*

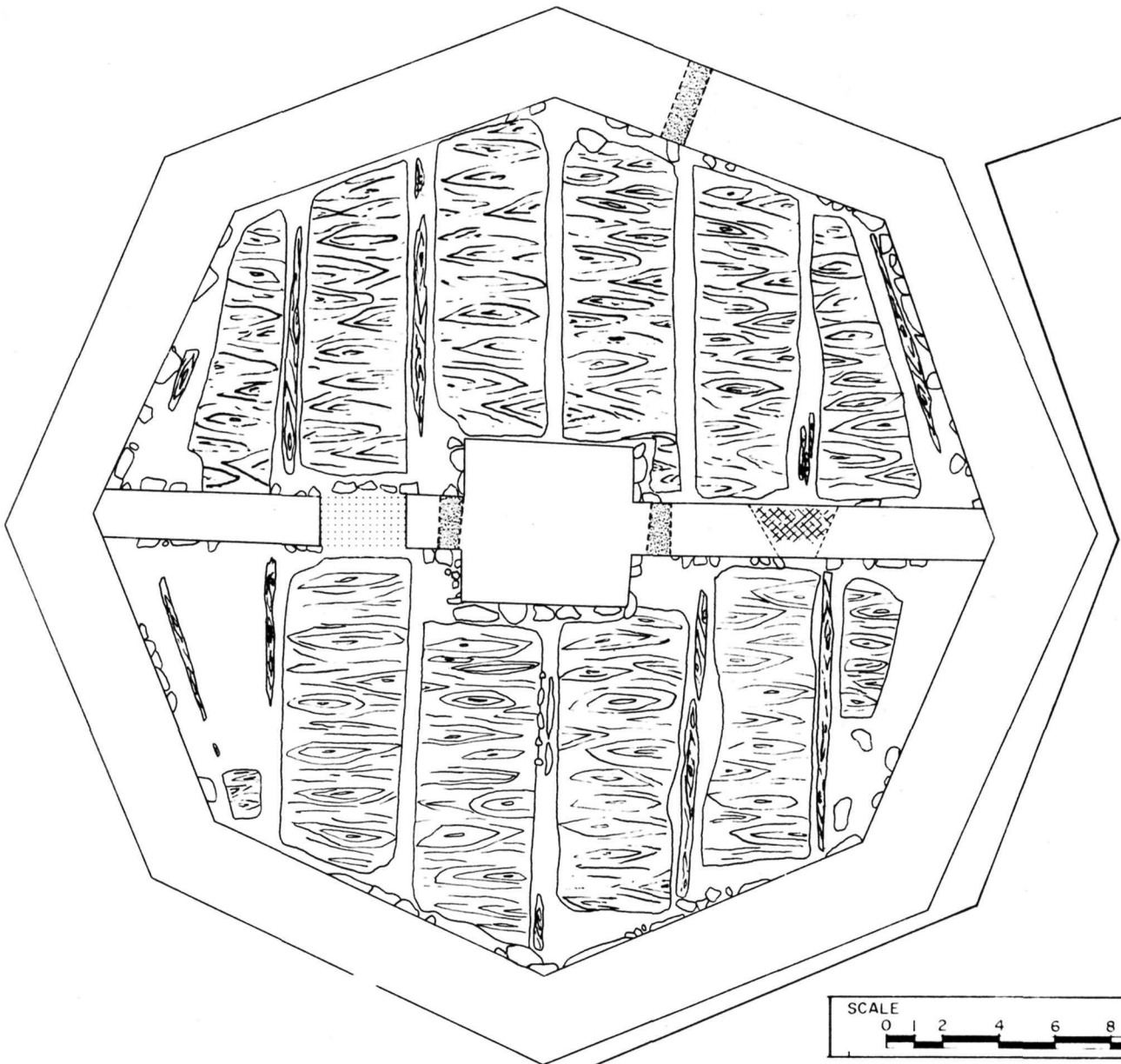
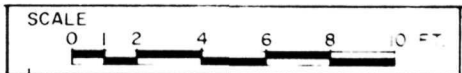
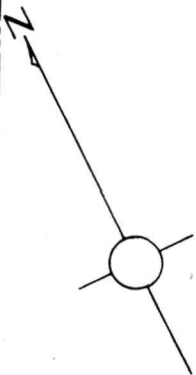
*124470-38
124470-39*

41 The octagonal blockhouse after excavation, looking northeast. A section of the stone walkway can be seen to the right of the foundation.

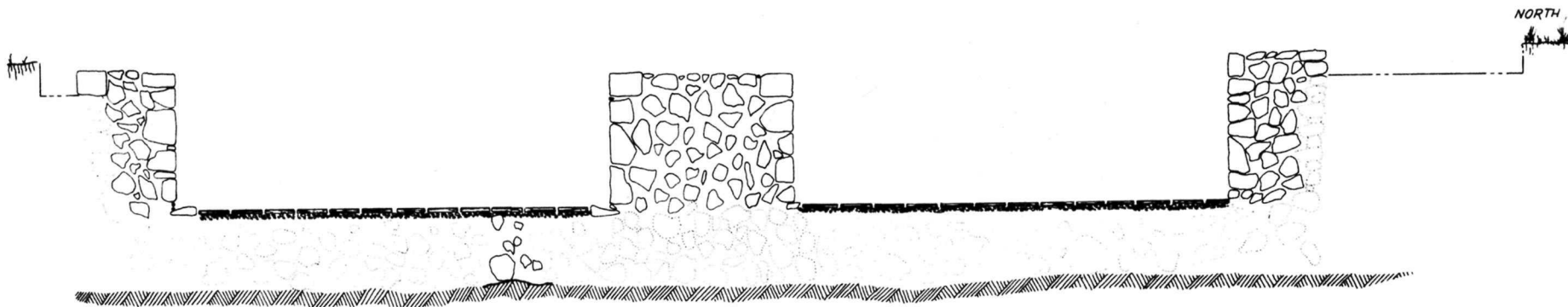
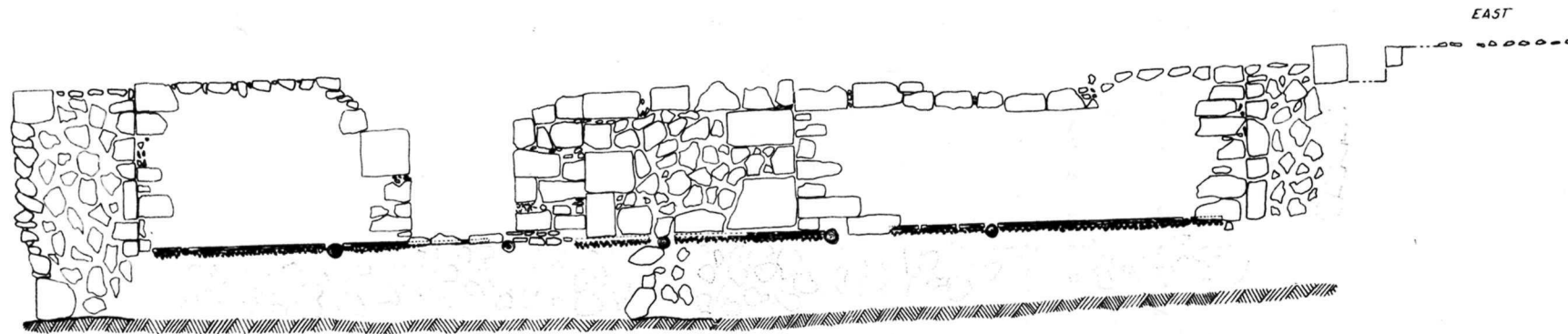
42 A section of the wall dividing the cellar of the octagonal blockhouse, showing the worked masonry.



- 43 A plan of the octagonal blockhouse detailing the floor construction, the doorway between the powder magazine and the cellar, the three drains and the base of the lamp recess in the centre wall. Although none of the planking is shown extending over the beam joists supporting the floor, data recorded during excavation strongly indicates that the planking extended over and was nailed to the joists, the present divided aspect of the floor being due to the rotting of the planks over the joists. (Plan by J.-P. Cloutier.)

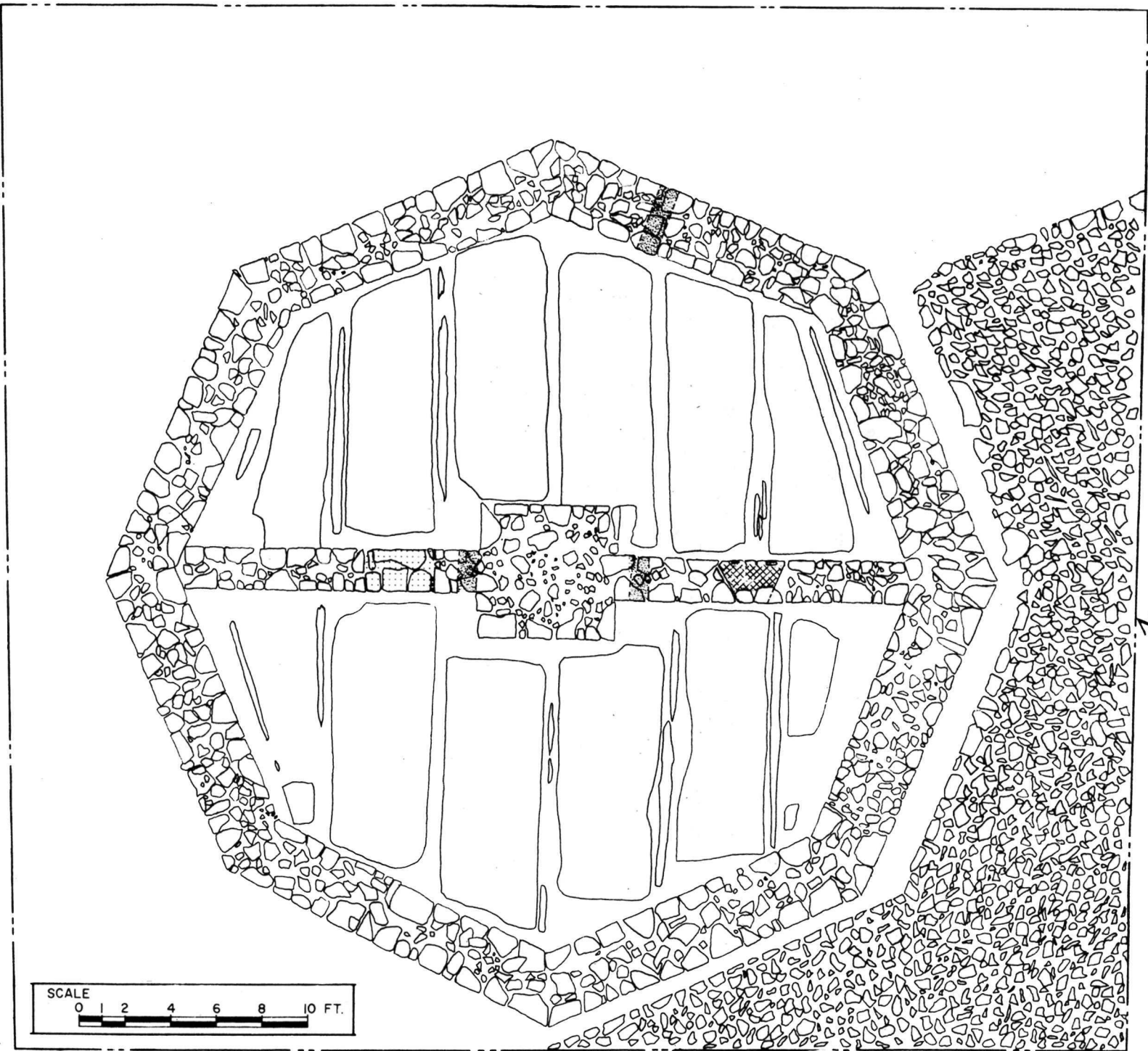


- 44 East-west and north-south sections of the octagonal blockhouse, showing the masonry foundation walls, the hearth base, the floor planking, joists and fill. The upper limit of the bedrock is shown by a series of diagonal lines. (Sections by J.-P. Cloutier.)

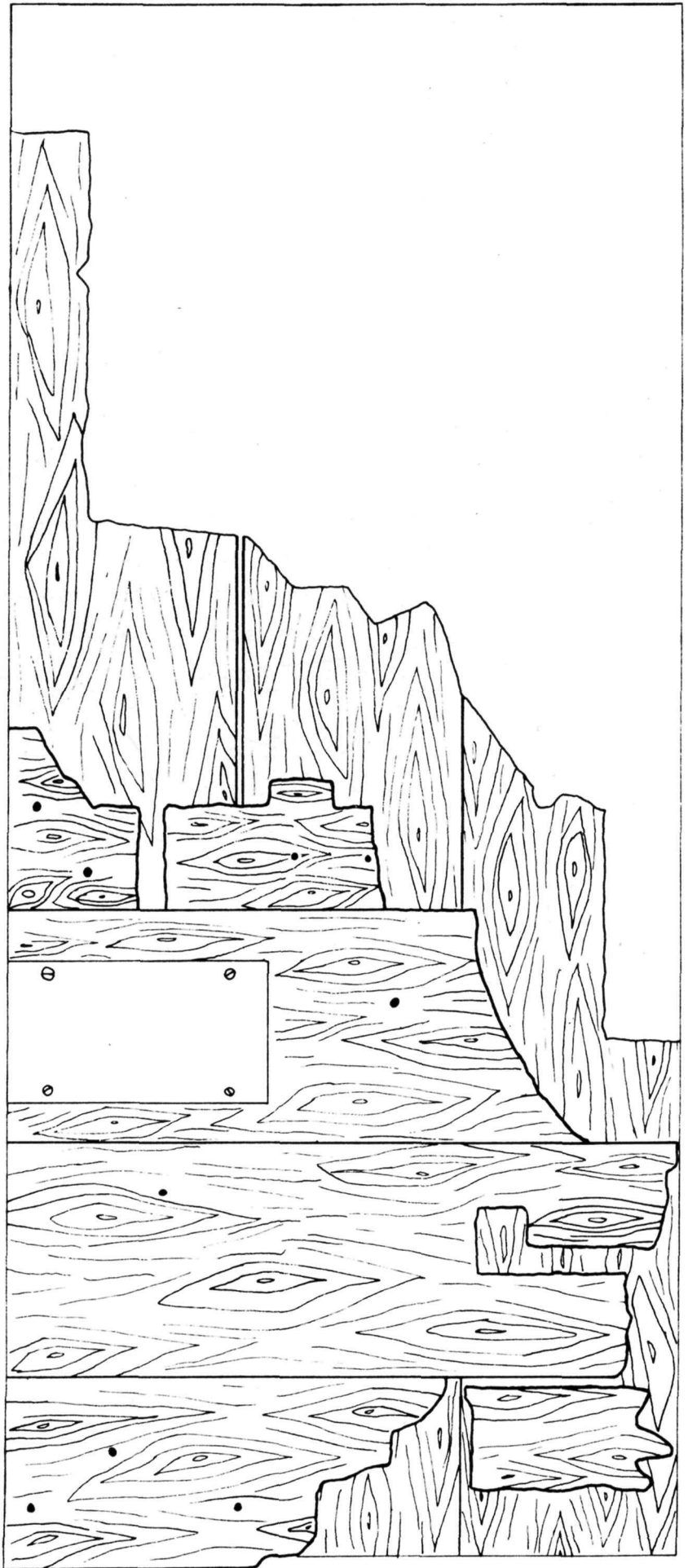


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 3		
OCTAGONAL BLOCKHOUSE		
DRAWN BY J. P. C.	SCALE 0 1 2 3 4 5 FT	DATE DEC. 1965

- 45 A plan of the octagonal blockhouse showing the details of the masonry foundation and the outlines of the remaining joists and sections of the wooden flooring. The doorway between the powder magazine and the cellar is shown by light stippling and the path of the three drains is depicted by heavy stippling. The base of the lamp recess in the centre wall is indicated by cross-hatching. The cracked stone feature on the east side of the structure is a part of the main walkway between the octagonal blockhouse and the entrance to the fort. (Plan by J.-P. Cloutier.)



- 46 Plan and section of the magazine door from the octagonal blockhouse. The door was constructed of two layers of tongue-and-groove planks, sheeted with copper on the side facing the cellar. Note the Ordnance mark, the broad arrow, on the lock.
(Drawing by Roger Marois.)



- 47 Palisade north of the octagonal blockhouse, looking northwest. The stones used to support the posts may be seen in the foreground.

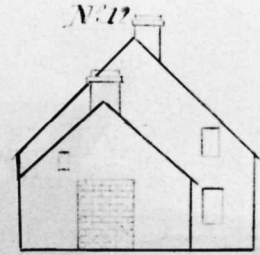
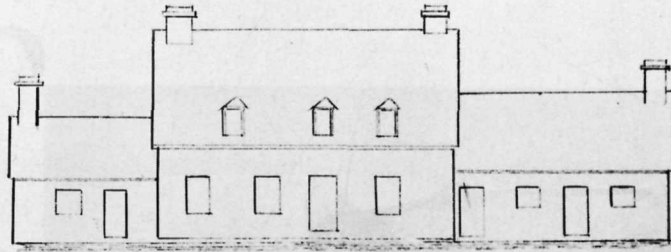


- 48 Plan of the commanding officer's quarters, 1823, by Durford. The plan shows interior details, including the four hearths of the structure. (Public Archives of Canada.)

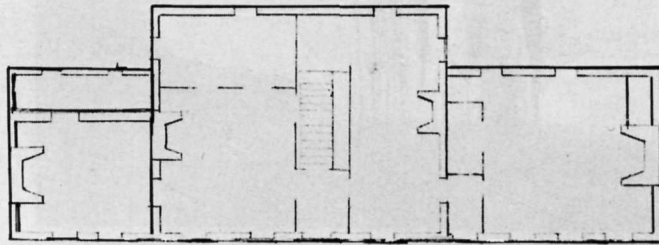
Coteau du Lac.

Public Buildings outside the Fort.

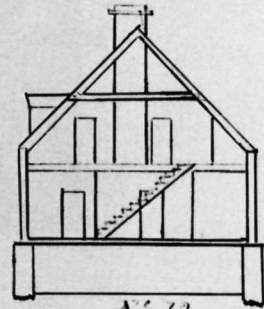
N^o 17



Commandants Quarters, framed wooden building, on stone foundation clapboarded and shingled. In terrace.

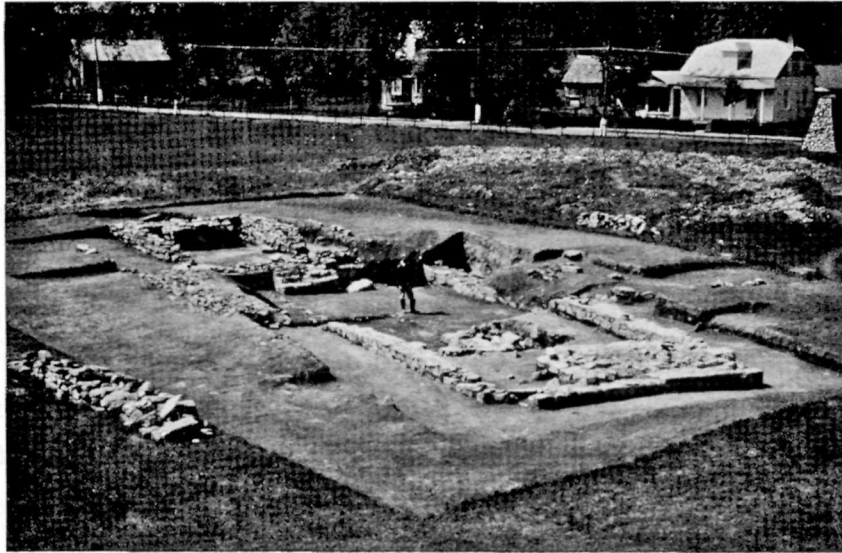


N^o 17

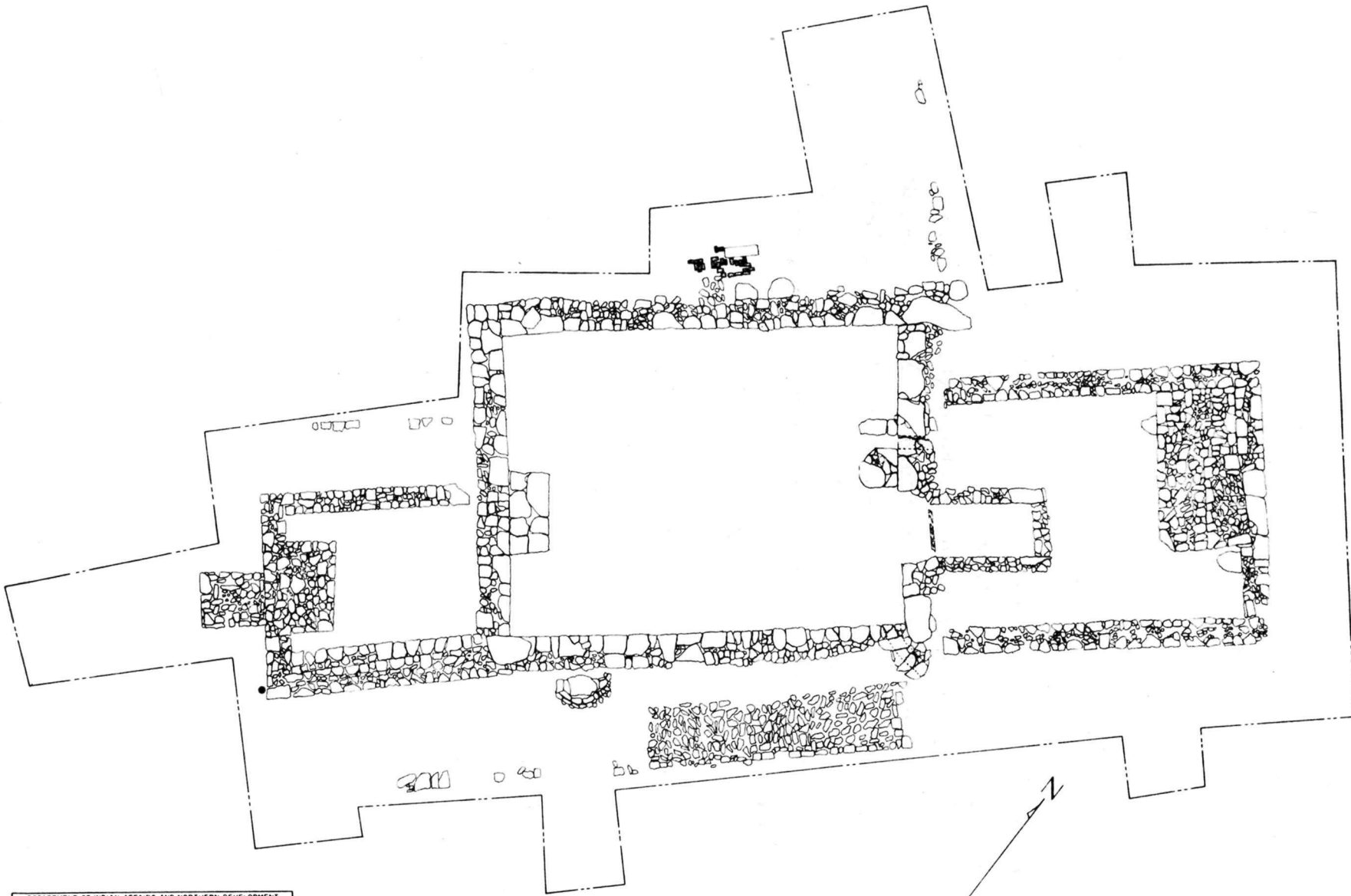


N^o 17

49 The commanding officer's quarters after excavation,
looking southwest.



50 A plan of the commanding officer's quarters showing the masonry foundation walls and hearth and chimney bases. The drain running through the northeast corner of the cellar, and another through the hearth base, are shown by stippling. The small open-ended rectangular feature between these two drains is thought to be an early entrance to the cellar, later levelled and filled in when the north wing was added to the building. The dozen or so bricks found near the west cellar wall were probably from the officers' mess kitchen, which was destroyed by fire in 1815. The post fragment uncovered next to the southeast corner of the south wing is shown by a hatched circle, and the cracked stone walkway borders the east and main facades of the house. (Plan by Michel Lapierre.)



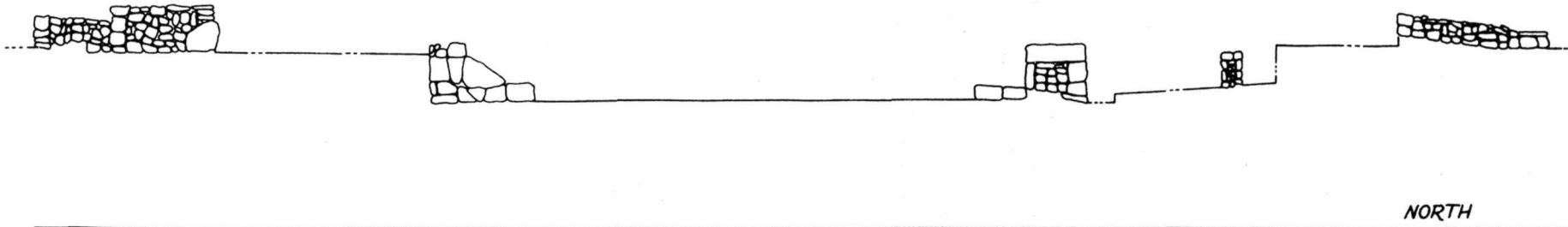
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 CANADIAN HISTORIC SITES DIVISION

FORT COTEAU-DU-LAC

GROUND PLAN OF STRUCTURE NO. 4
 COMMANDANT'S QUARTERS

DRAWN BY M L SCALE 0 2 4 6 8 10 FT DATE DEC 1965

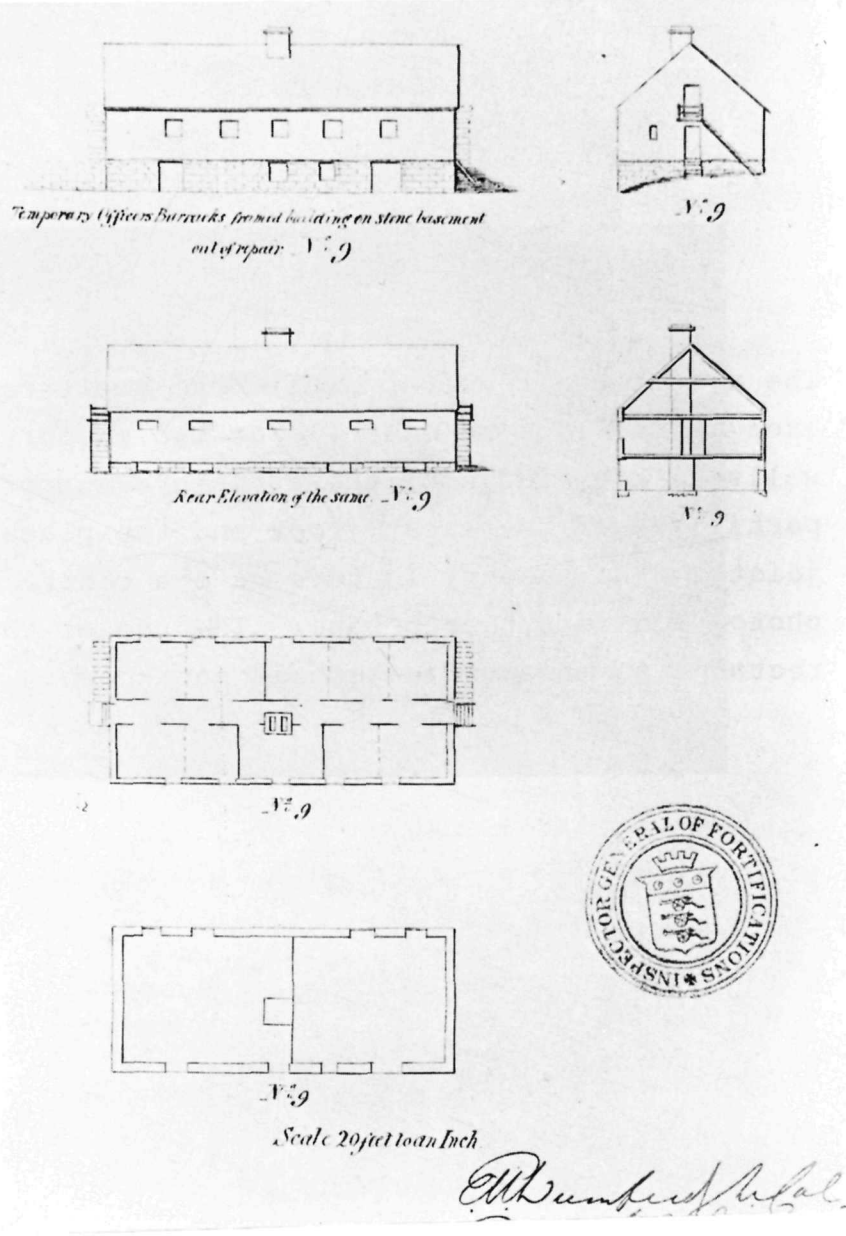
- 51 A north-south section of the commanding officer's quarters, showing (from south the north) the chimney footing and hearth base of the south wing, the two hearth bases of the main house, the north foundation wall, the rear wall of the levelled and filled-in entrance to the cellar, and the hearth base and foundation wall of the north wing. (Section by Michel Lapierre.)



365

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 4		
COMMANDANT'S QUARTERS		
DRAWN BY M. L.	SCALE 0 1 2 4 6 8 10 FT.	SITE SEC. 1988

- 52 A plan and elevation of the storehouse/temporary officers' quarters by Durnford, 1823, showing interior details, including the hearth base located near the centre of the building and partitions dividing the first floor. (Public Archives of Canada.)



Temporary Officers Barracks, framed building on stone basement out of repair. V. 9

Rear Elevation of the same. V. 9

V. 9

V. 9

Scale 20 feet to an Inch

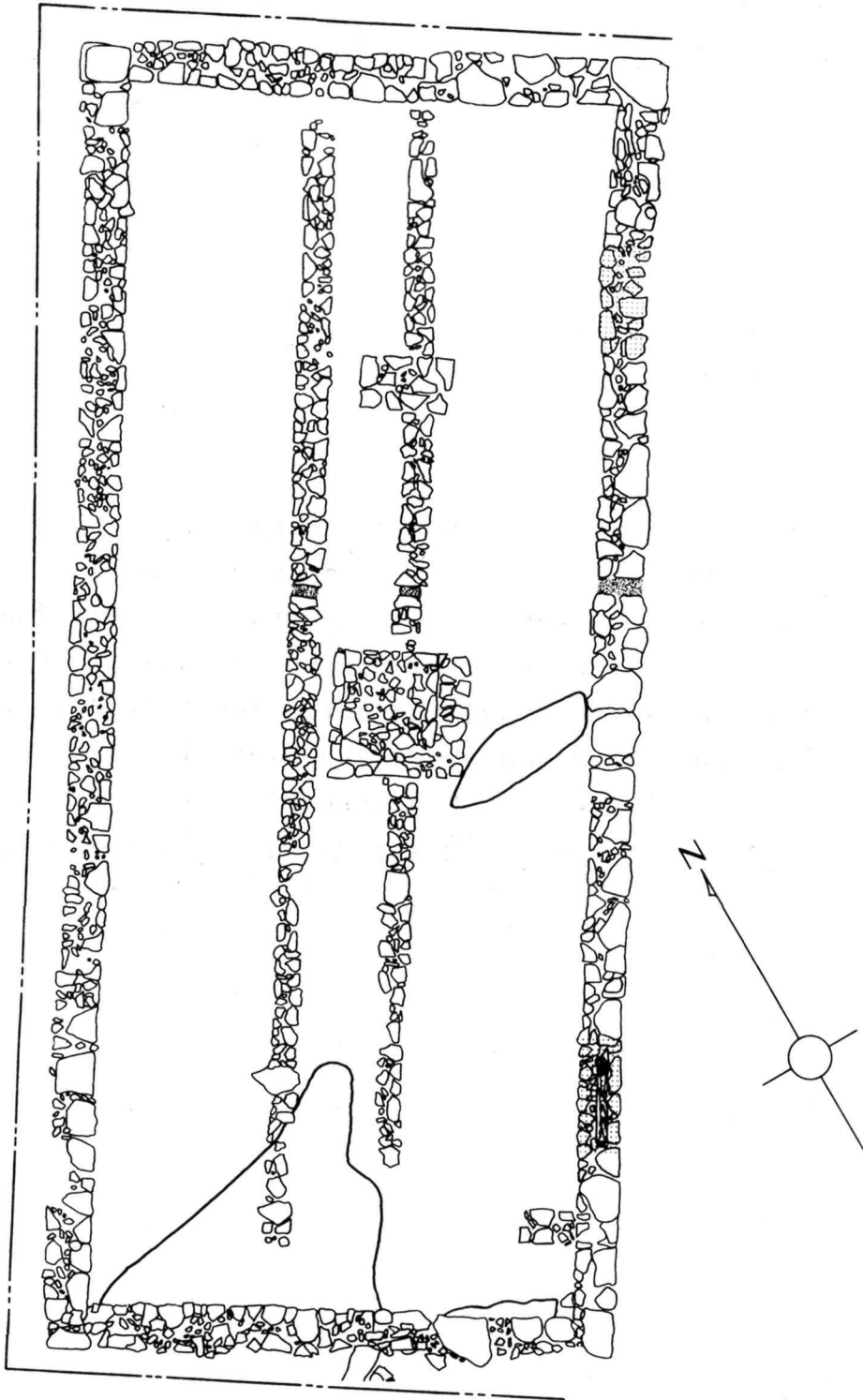
W. D. ...



- 53 The storehouse/temporary officers' quarters after excavation, looking south. The two masonry bearing walls in the middle of the structure supported the partitions of the first floor and the plank flooring joists. The masonry feature at the centre of the photograph is a hearth base. The use of the other rectangular masonry feature is not known.

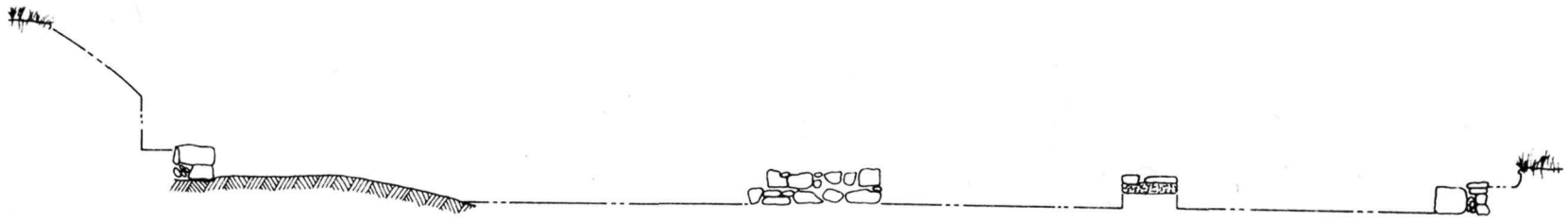


- 54 A plan of the storehouse/temporary officers' quarters showing the outside masonry foundation walls, the longitudinal bearing foundation in the centre of the building and the hearth base, also near the centre. The identification of the rectangular masonry feature to the north of the hearth base is uncertain. The entrances near the northeast and southeast corner of the structure are shown by light stippling. The wooden sill associated with the southern entrance is also included, as is the drain running through the central supports and the east wall of the structure. The use of the small masonry feature inside the foundation walls near the inside southeast corner is unknown, but it may have to do with later construction. The heavy lines mark the limits of the bedrock exposed during excavation. (Plan by J.-P. Cloutier.)

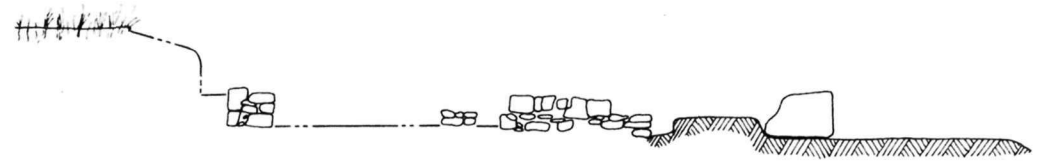


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT	
CANADIAN HISTORIC SITES DIVISION	
FORT COTEAU-DU-LAC	
GROUND PLAN OF STRUCTURE NO. 6	
STOREHOUSE -	
TEMPORARY OFFICERS' QUARTERS	
DRAWN BY	SCALE
J.P.C.	0 2 4 6 8 10 FT
	DATE
	DEC. 1965

- 55 North-south and east-west sections of the storehouse/temporary officer's quarters. The north-south section illustrates the south foundation wall, the hearth base, the unidentified rectangular masonry feature and the north foundation wall. The east-west section shows the west foundation wall, the central support, the hearth base and the east foundation wall. (Sections by J.-P. Cloutier.)



NORTH

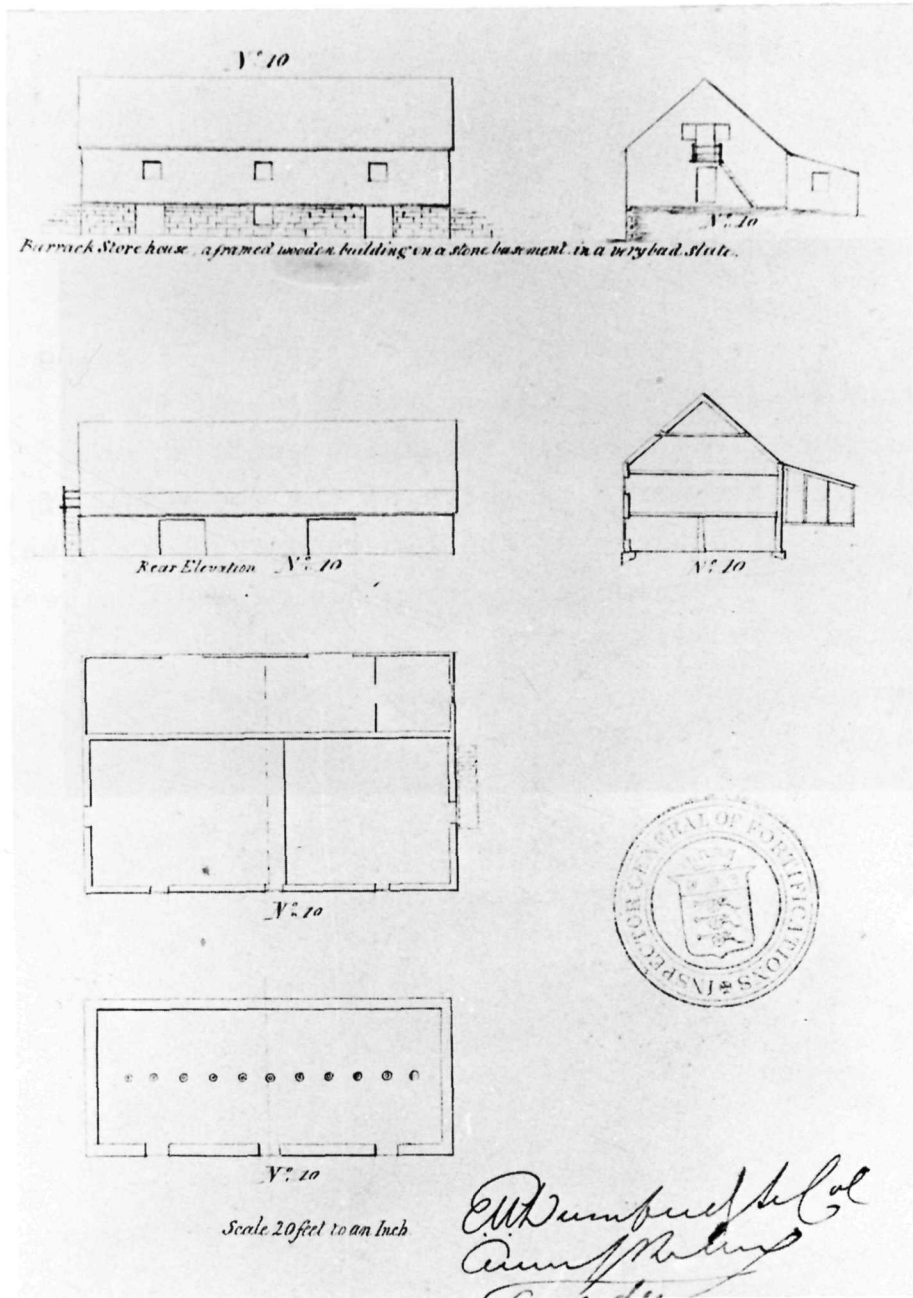


EAST

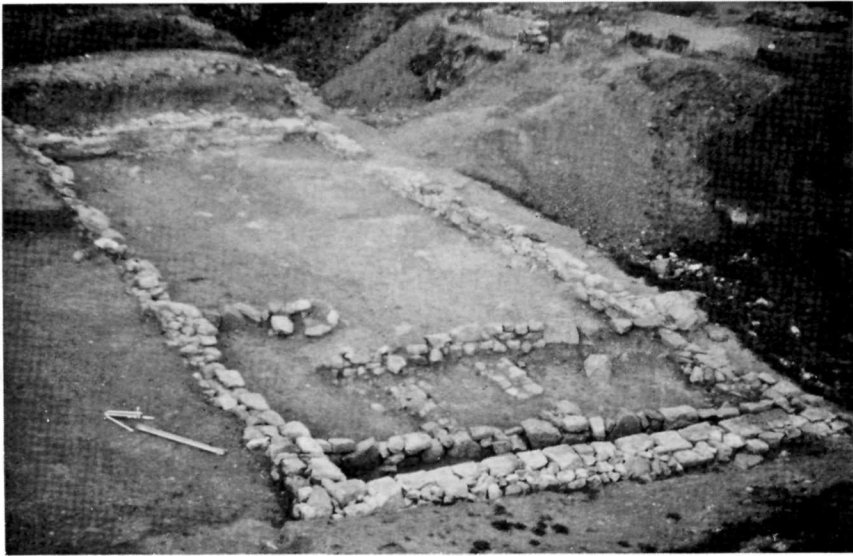
373

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 6		
STOREHOUSE -		
TEMPORARY OFFICERS' QUARTERS		
DRAWN BY J. P. C.	SCALE 0 1 2 4 6 8 10 FT	DATE DEC. 1965

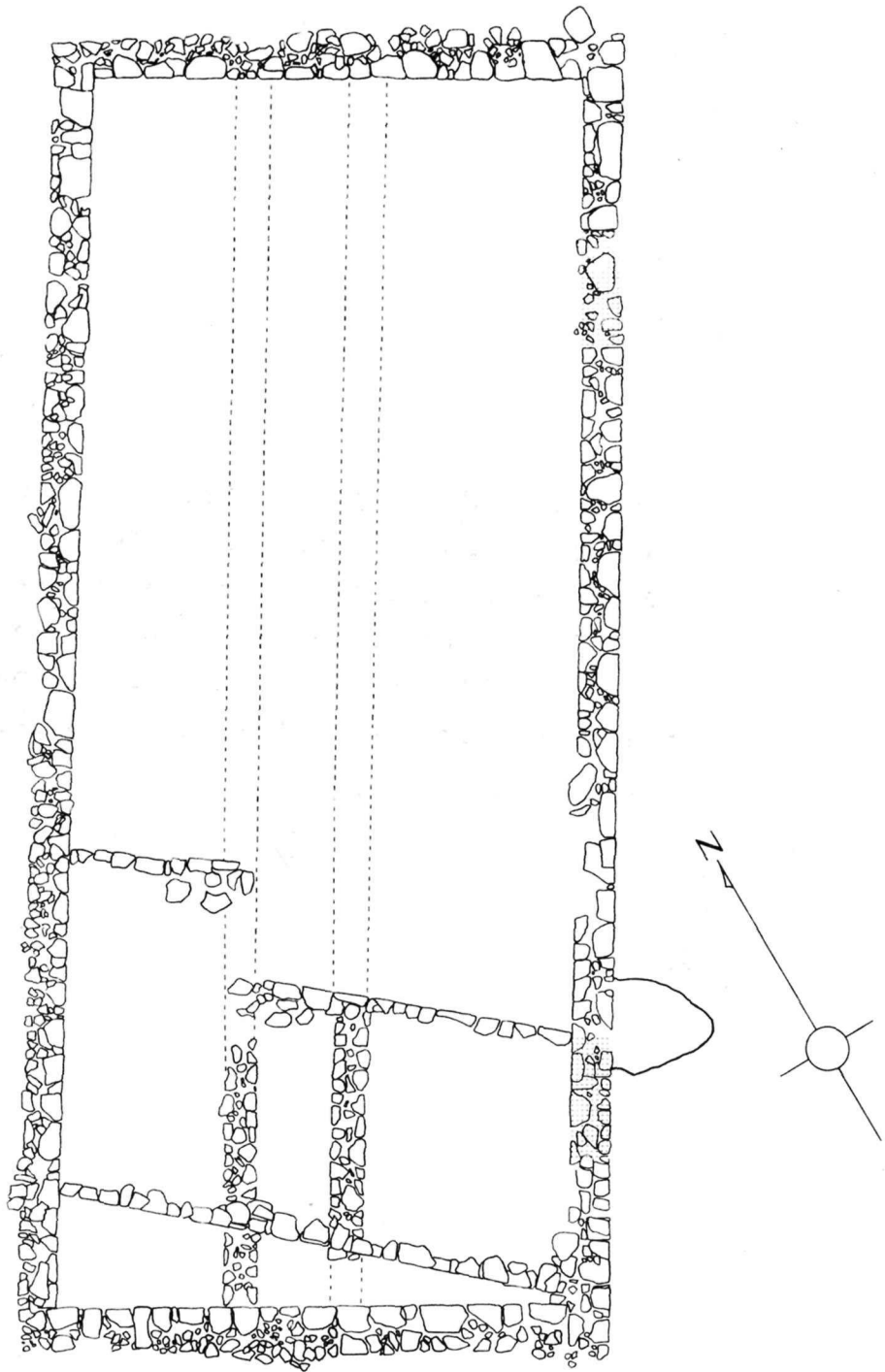
- 56 Structural drawings of the storehouse/gunshed by Durnford, 1823, showing interior details in both plan and elevation. (Public Archives of Canada.)



- 57 The storehouse/gunshed after excavation, looking northeast. The canal is to the right of the building. The dry-laid retaining walls which supported the earth ramp are at the south end of the building. Sections of the two masonry bearing walls which were covered by the ramp can be seen between the two ramp walls.

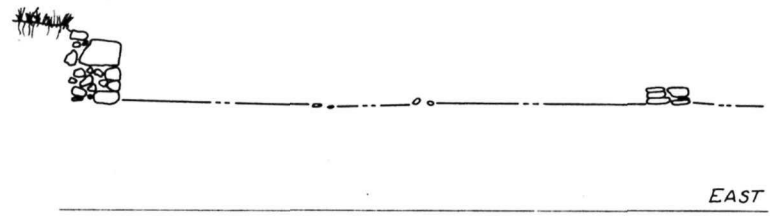
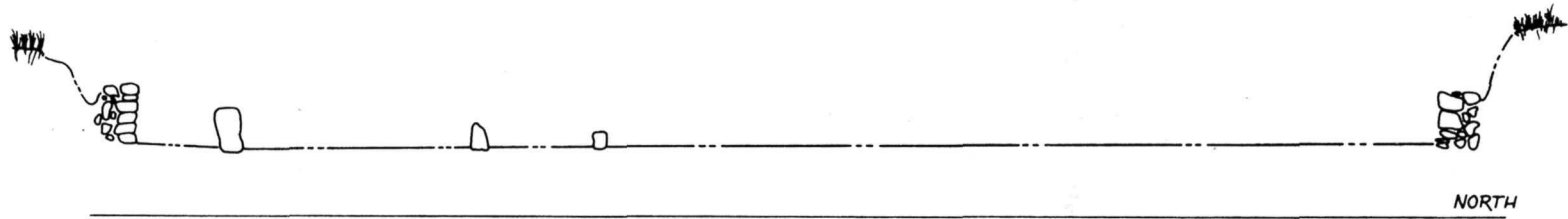


- 58 A plan of the storehouse/gunshed showing the masonry foundation walls and the fragments of two central longitudinal bearing foundations similar to those in the storehouse/temporary officers' quarters. The two entrances to the building shown by light stippling are at the north and south ends of the east wall. The retaining walls forming the sides of the ramp cross the interior of the structure diagonally at its south end. (Plan by J.-P. Cloutier.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT			
CANADIAN HISTORIC SITES DIVISION			
FORT COTEAU-DU-LAC			
GROUND PLAN OF STRUCTURE NO. 5			
STOREHOUSE - GUN SHEI			
DRAWN BY	SCALE	DATE	
J. P. C.	0 2 4 6 8 10 FT.	DEC. 1965	

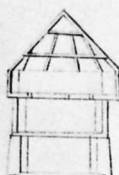
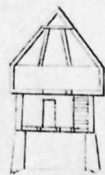
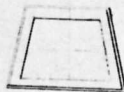
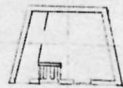
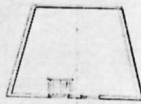
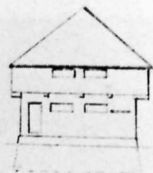
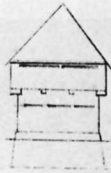
- 59 North-south and east-west sections of the storehouse/gunshed. The north-south section shows the masonry foundation walls and the ramp retaining walls. The east-west section shows the masonry foundation walls and the barely discernable bearing foundations near the centre of the structure. (Sections by J.-P. Cloutier.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		DATE
CANADIAN HISTORIC SITES DIVISION		DEC. 1965
FORT COTEAU-DU-LAC CROSS-SECTION OF STRUCTURE NO. 5 STOREHOUSE - GUN SHED		
DRAWN BY J. P. C.	SCALE 	

- 60 Plans and elevations of the north blockhouse, 1823,
by Durnford, showing internal and external features.
(Public Archives of Canada.)

N^o 3 Blockhouse
Not worth repair



B. O.

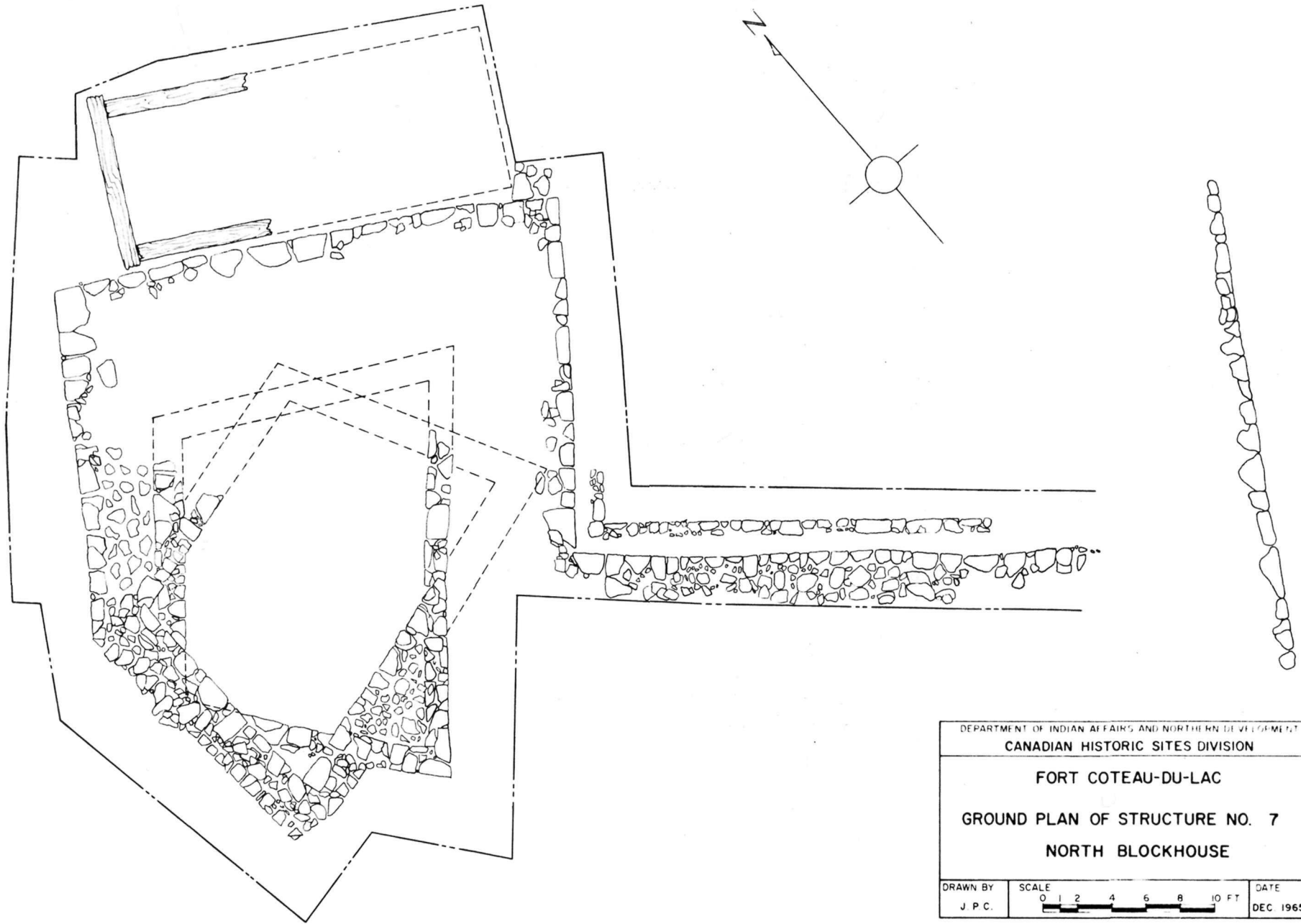
E. W. Davenport
Architect



- 61 North blockhouse after excavation, looking southwest. Although the base course of the north retaining wall of the platform still stands, the north foundation wall of the building itself is missing completely. The remains of the wooden shed built against the base of the platform retaining wall are visible in the right foreground.



- 62 A plan of the north blockhouse showing its two foundations, one superimposed on the other, and its platform retaining walls. The base of the wooden shed abutting the north platform retaining wall is at the top of the drawing and the wall between the west retaining wall of the platform and the canal is to the right. The masonry feature abutting the northeast corner of the platform retaining wall continues to the northeast, ending at a point near the northern edge of the canal. The masonry feature to the far right of the drawing is part of the west wall of the canal. (Plan by J.-P. Cloutier.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
 CANADIAN HISTORIC SITES DIVISION

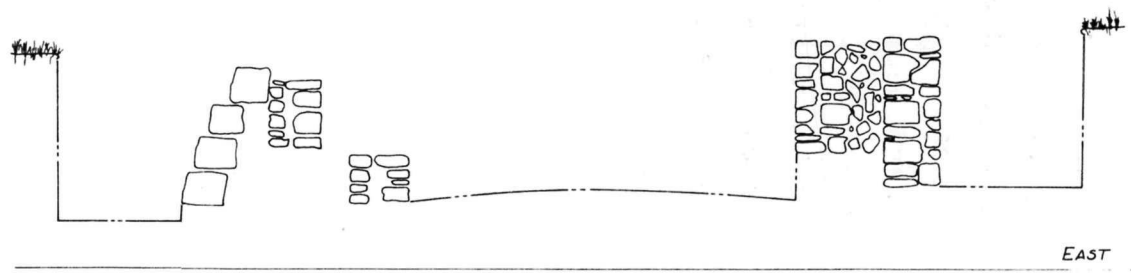
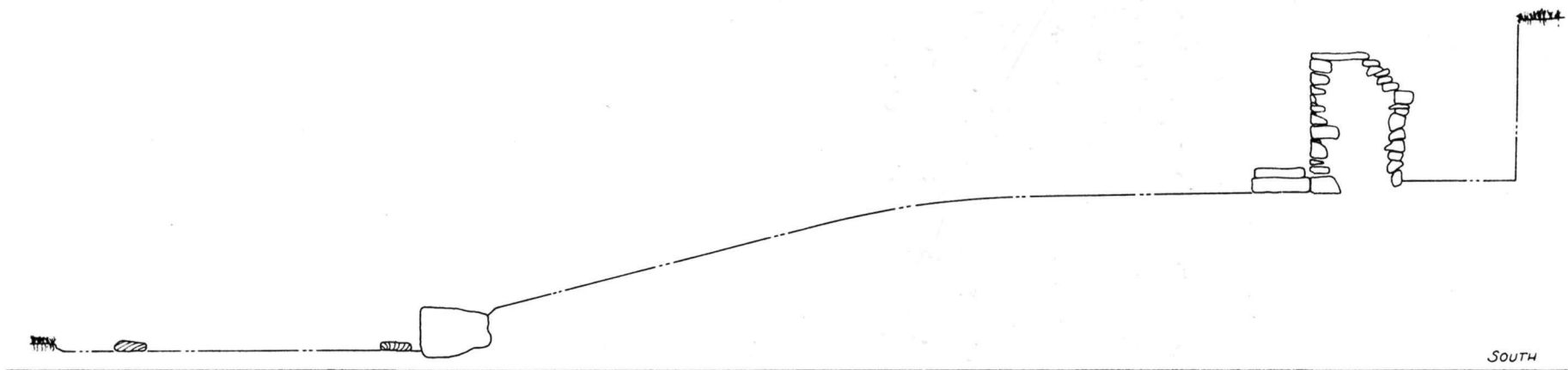
FORT COTEAU-DU-LAC

GROUND PLAN OF STRUCTURE NO. 7

NORTH BLOCKHOUSE

DRAWN BY J. P. C. SCALE 0 1 2 4 6 8 10 FT. DATE DEC 1965

- 63 North-south and east-west sections of the north blockhouse showing the two foundations. The slanting retaining wall on the west side of the lower section drawing was abutted by the southeastern end of the earthworks which enclosed the fort west of the canal. (Sections by J.-P. Cloutier.)



389

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT			
CANADIAN HISTORIC SITES DIVISION			
FORT COTEAU-DU-LAC			
CROSS SECTION OF STRUCTURE NO. 7			
NORTH BLOCKHOUSE			
DRAWN BY	SCALE	DATE	FT
J. P. C.	0 1 2 3 4 5 6	DEC 1965	

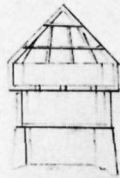
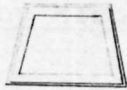
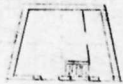
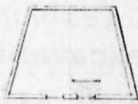
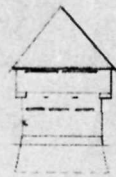
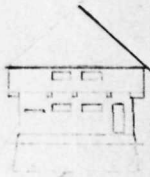
- 64 Temporary kitchen or ox shed. The stones at the bottom of the photo may have been the flooring of either a kitchen or a shed for oxen; both structures were located in the same area. The wooden panel may also have been part of one of the two buildings. To the right of the photo is the east retaining wall of the north blockhouse platform. In the background is the retaining wall between the north blockhouse and the west side of the canal.



65 Plans and elevations of the south blockhouse by
Durnford, 1823. (Public Archives of Canada.)

УСТАВЪ НА Л.О.

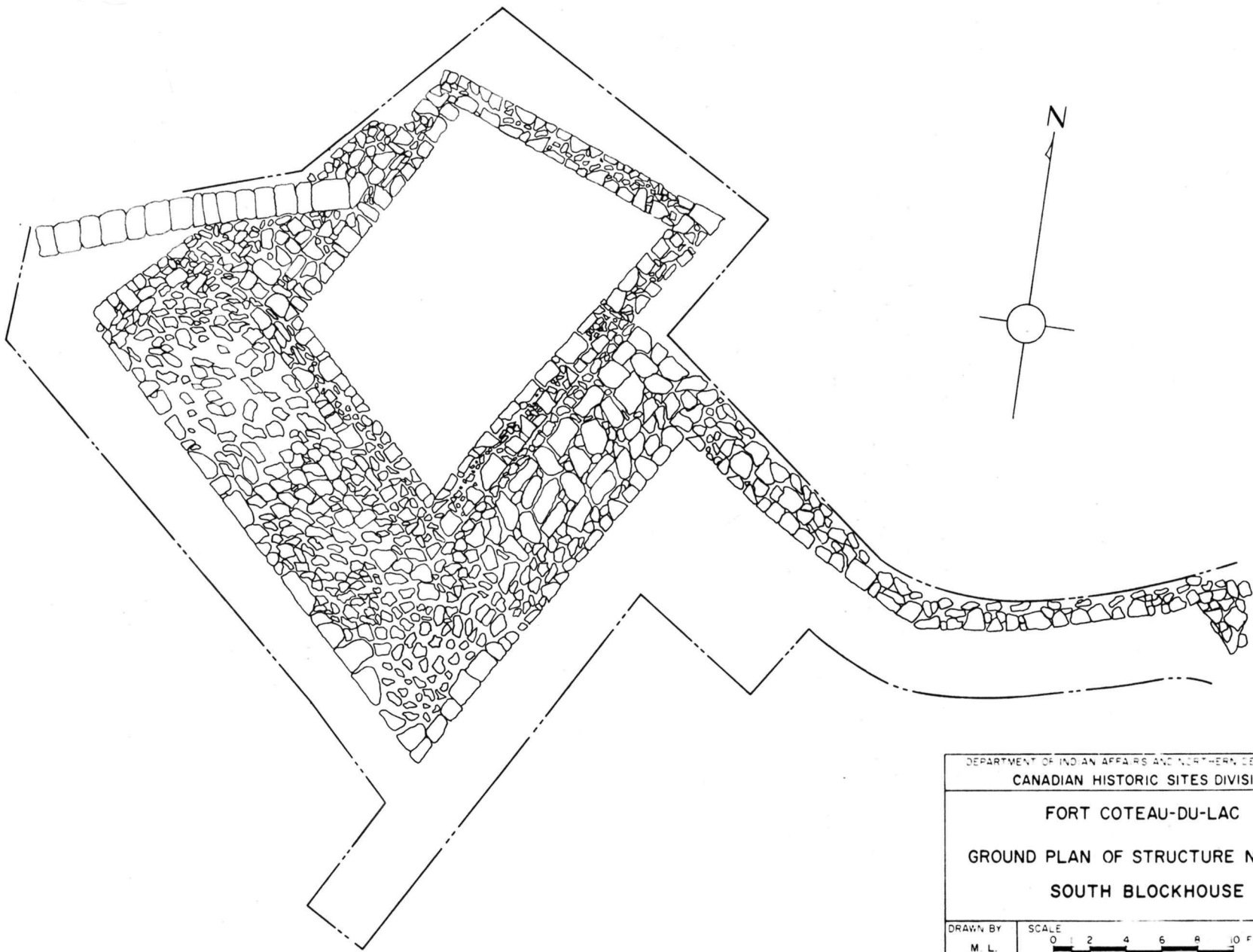
№ 2 Плоскостъ
въ абадъ



- 66 The south blockhouse after excavation, looking north. Note the extensive quarrying of the south platform retaining wall. To the right is a section of the retaining wall which curves toward the canal and the storehouse/gunshed.

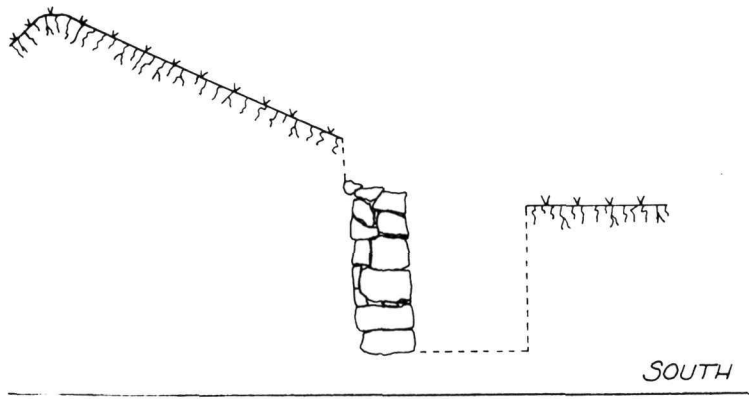
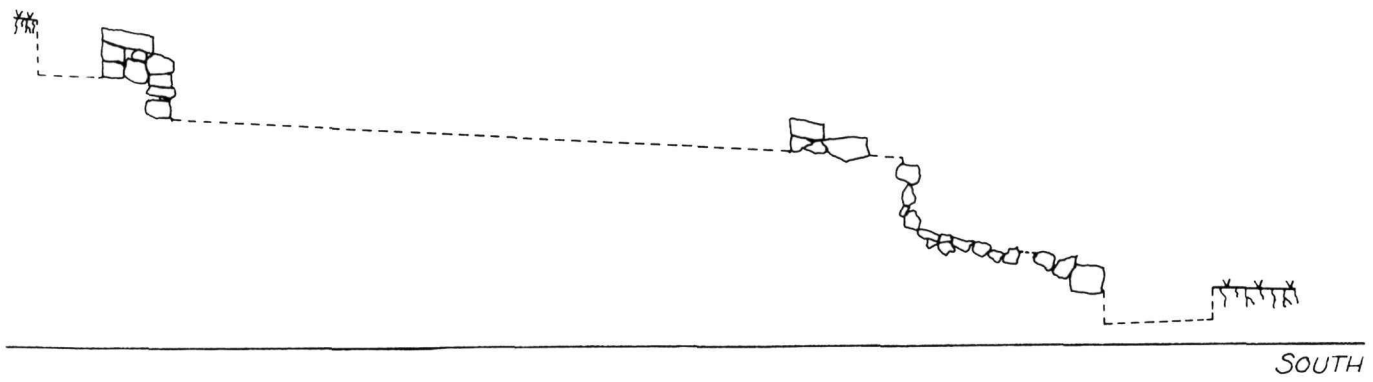
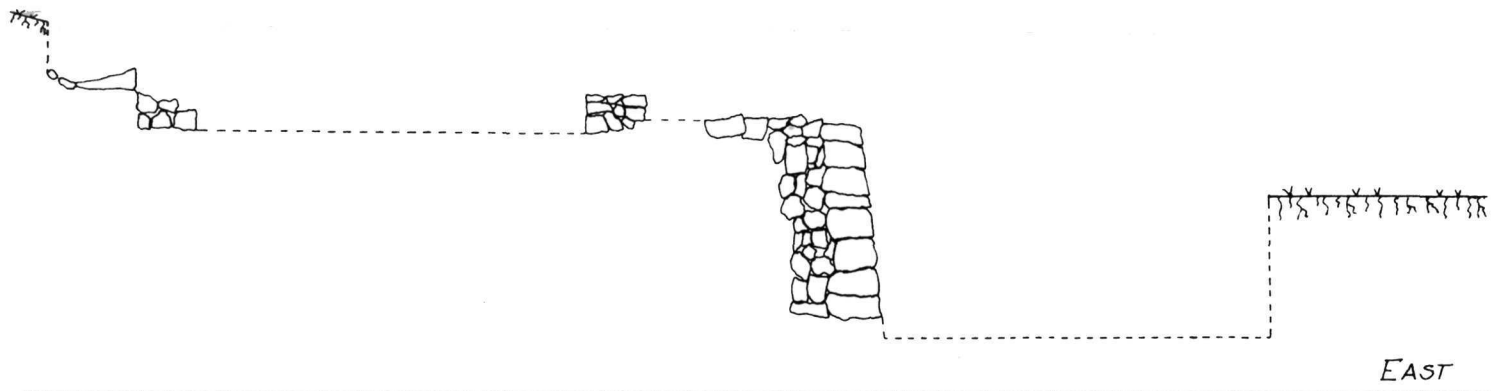


- 67 A plan of the south blockhouse showing the trapezoidal foundation, the platform retaining walls and the stone fill on which the blockhouse was built. The retaining wall to the right of the drawing curves toward the storehouse/gunshed and the canal, but does not abut either. The west platform retaining wall is shown abutting the eastern end of the dry masonry escarp supporting the earthworks on the south side of the fort, indicating that it was built after the escarp. (Plan by Michel Lapierre.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT	
CANADIAN HISTORIC SITES DIVISION	
FORT COTEAU-DU-LAC	
GROUND PLAN OF STRUCTURE NO. 8	
SOUTH BLOCKHOUSE	
DRAWN BY M. L.	SCALE 0 2 4 6 8 10 FT
DATE DEC. 1965	

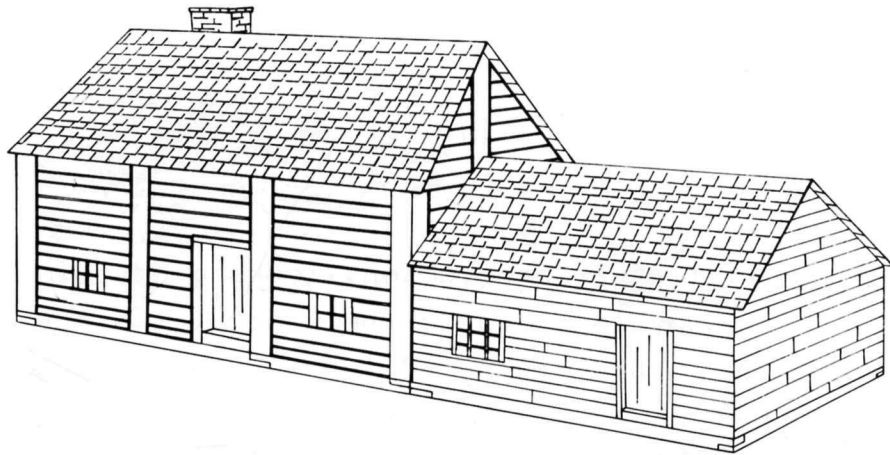
68 North-south and east-west section of the south blockhouse. The bottom section drawing passes through the retaining wall between the east side of the blockhouse and the cana. (Sections by Michel Lapierre.)



399

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT	
CANADIAN HISTORIC SITES DIVISION	
FORT COTEAU-DU-LAC	
CROSS-SECTION OF STRUCTURE NO. 8	
SOUTH BLOCKHOUSE	
DRAWN BY M. L.	SCALE 0 1 2 4 6 8 10 FT
DATE DEC. 1955	

69 The hospital. No historical plan of this building exists. The artist's conception shows a heavy squared log building. The lighter frame addition at its southern end probably dates from the War of 1812. The hospital may have had a hipped roof instead of the gable roof shown here. (Drawing by J.-P. Cloutier.)

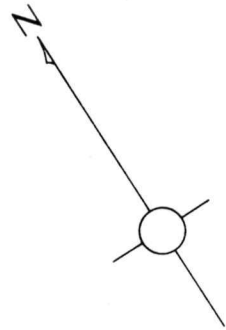
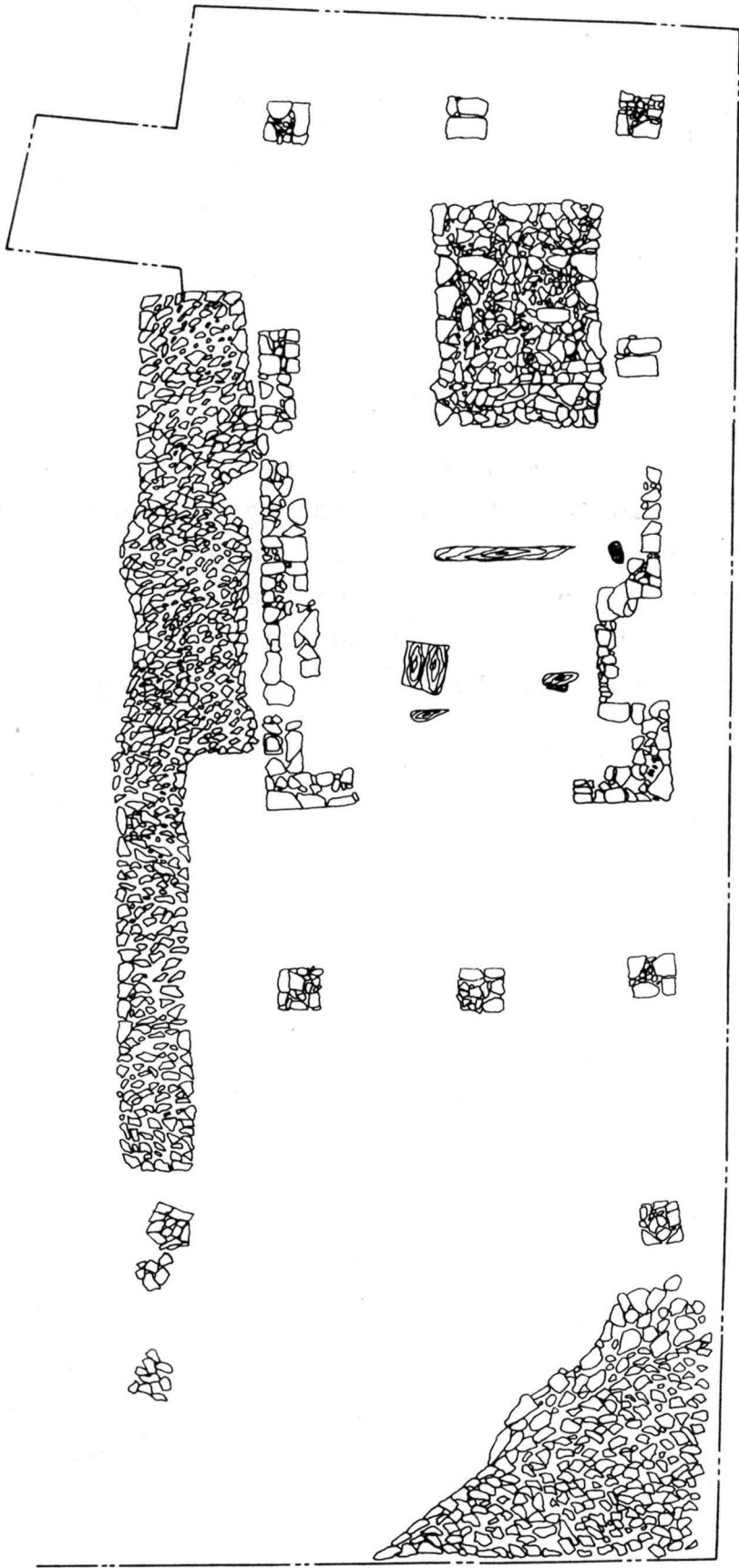


J. P. Cloutier

70 The hospital after excavation, looking north. A narrow walkway is shown to the west of the structure and in the right foreground is a section of the principal walkway which extends from the east bridge abutment to the octagonal blockhouse.

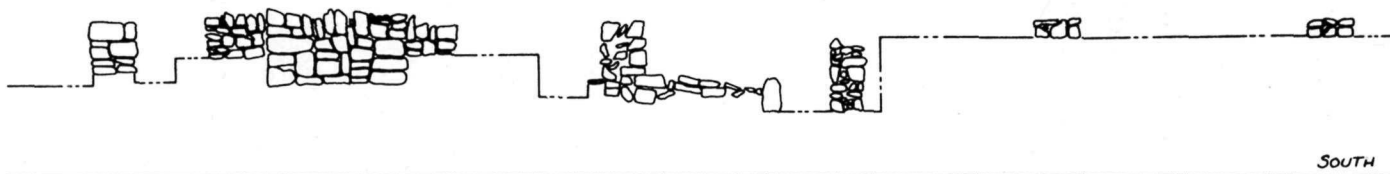


- 71 A plan of the hospital showing the footings, the hearth base and the masonry foundation walls of the northern (or earliest) part of the structure. The latter may have formed the small cellar near the centre of the building. Bordering the west side of the building is a narrow stone walkway. At the southeast corner of the hospital is a section of the main walkway which leads from the east end of the bridge crossing the canal to the octagonal blockhouse. (Plan by Michel Lapierre.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 9		
HOSPITAL		
DRAWN BY M. L.	SCALE 0 1 2 4 6 8 10 FT.	DATE DEC. 1965

72 A north-south section of the hospital. The section shows, from left to right, a footing, the hearth base with an apron on both sides, another footing and part of the foundation wall, the south end of the foundation wall, and two of the footings of the addition to the main part of the structure. (Section by Michel Lapierre.)



407

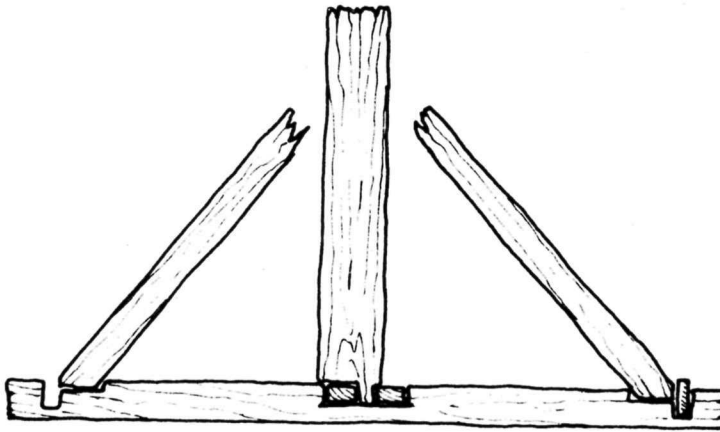
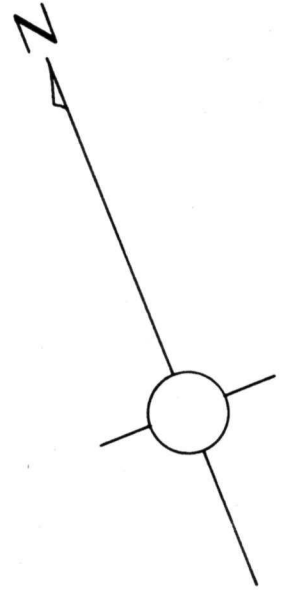
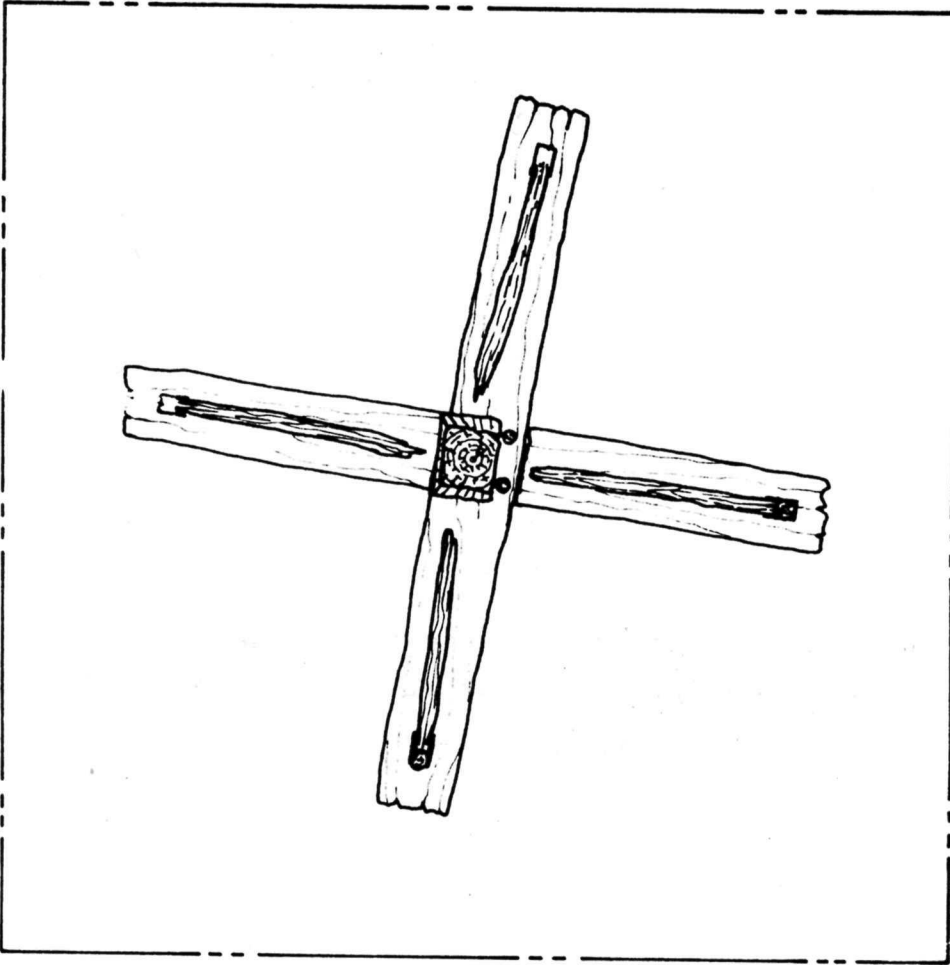
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 9		
HOSPITAL		
DRAWN BY M. L.	SCALE 	DATE DEC. 1965

73 Cloverleaf bastion flagstaff. The base and supports of the flagstaff during excavation. The arrow points north and bears a scale in tenths of a foot.

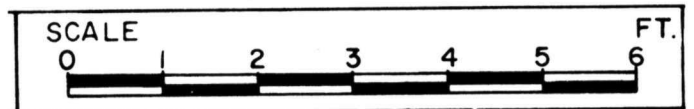
74 Cloverleaf bastion; a prehistoric flexed burial. An anthropomorphic stone figure is visible below the lower righthand corner of the identifying board and a bone dagger may be seen immediately below it. Another dagger is visible below the direction arrow, next to the right humerus. An unidentified stone object is located in the same area. The arrow points north.



75 Plan and section of the flagpole base from the cloverleaf bastion. (Drawings by A.E. Wilson.)



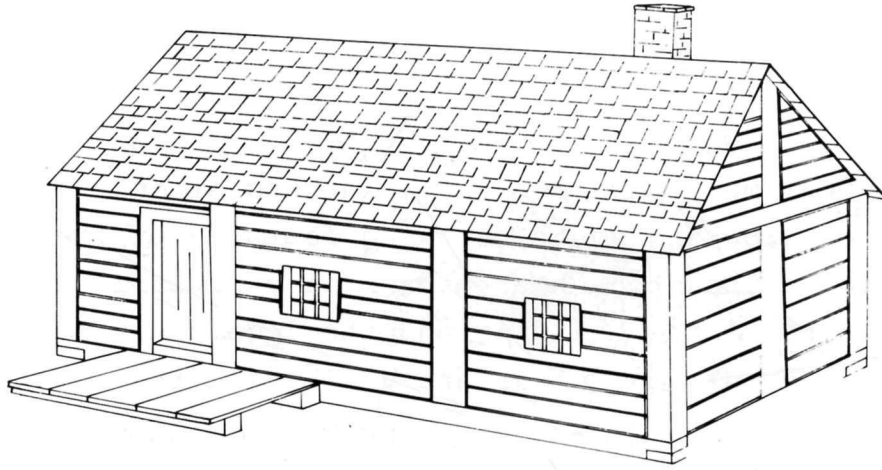
EAST



76 A plan of the cloverleaf bastion showing the wooden remnants of the three gun platforms as recorded after excavation. (Drawing by Richard Lueger.)

This plan was not available to be published.

- 77 Hospital/master carpenter's quarters. This structure had been demolished by 1823, when Durnford made plans of the site. This drawing is based on historical and field data. The shingles and pièce sur pièce construction are common among the early structures of the period. The dimensions, taken from early plans, were confirmed by field investigation. The building may have had a hipped roof instead of the gable roof shown here. (Drawing by J.-P. Cloutier.)



J. P. Cloutier

60

- 78 The hospital/master carpenter's quarters after excavation, looking south, showing features of the foundation. The stone hearth base is visible in the upper centre of the building and the logs and planks at the bottom of the cellar are visible in the lower centre. To the right is a section of the walkway leading from the east bridge abutment to the octagonal blockhouse.

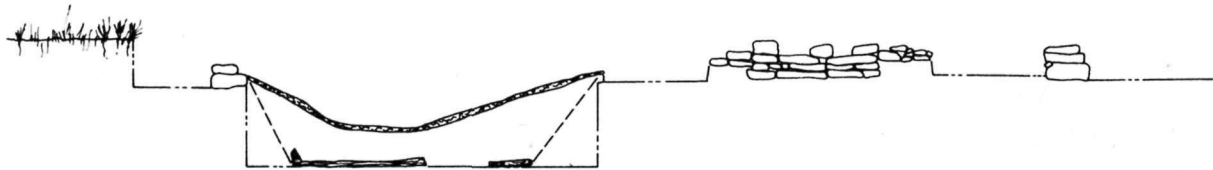


- 79 . Plan of the hospital/master carpenter's quarters showing the masonry foundation, the hearth base and the cellar and its planking. The linear feature to the east is the remains of a plank fence. The east bridge abutment is to the northwest of the building and the walkway leading from it to the octagonal blockhouse runs toward the northeast. A stone approach leading to the entrance of the hospital/master carpenter's quarters abuts the south side of the main walkway. (Plan by Michel Lapierre.)

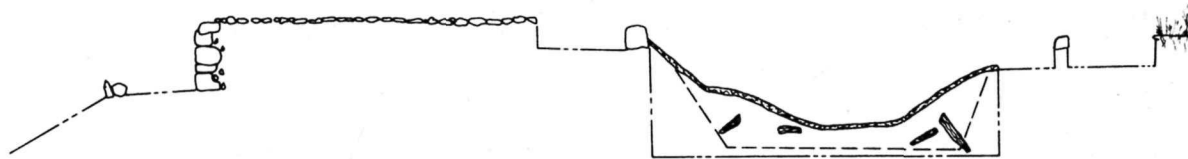


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT	
CANADIAN HISTORIC SITES DIVISION	
FORT COTEAU-DU-LAC	
GROUND PLAN OF STRUCTURE NO. 11	
HOSPITAL- MASTER CARPENTERS' QUARTERS	
DRAWN BY M. L.	SCALE 0 1 2 4 6 8 10 FT.
DATE DEC. 1965	

80 North-south and east-west sections of the hospital/master carpenter's quarters. The north-south section illustrates a section of the masonry foundation, the cellar, hearth base with an apron on each side, and a section of the masonry foundation at the south end of the structure. The east-west section shows the east bridge abutment, the stone walk, part of the west foundation, the cellar and a section of part of the east foundation. (Sections by Michel Lapierre.)



SOUTH



EAST

421

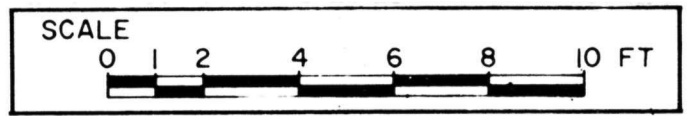
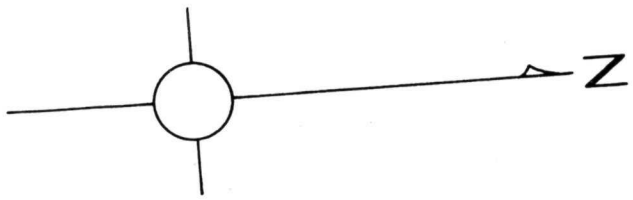
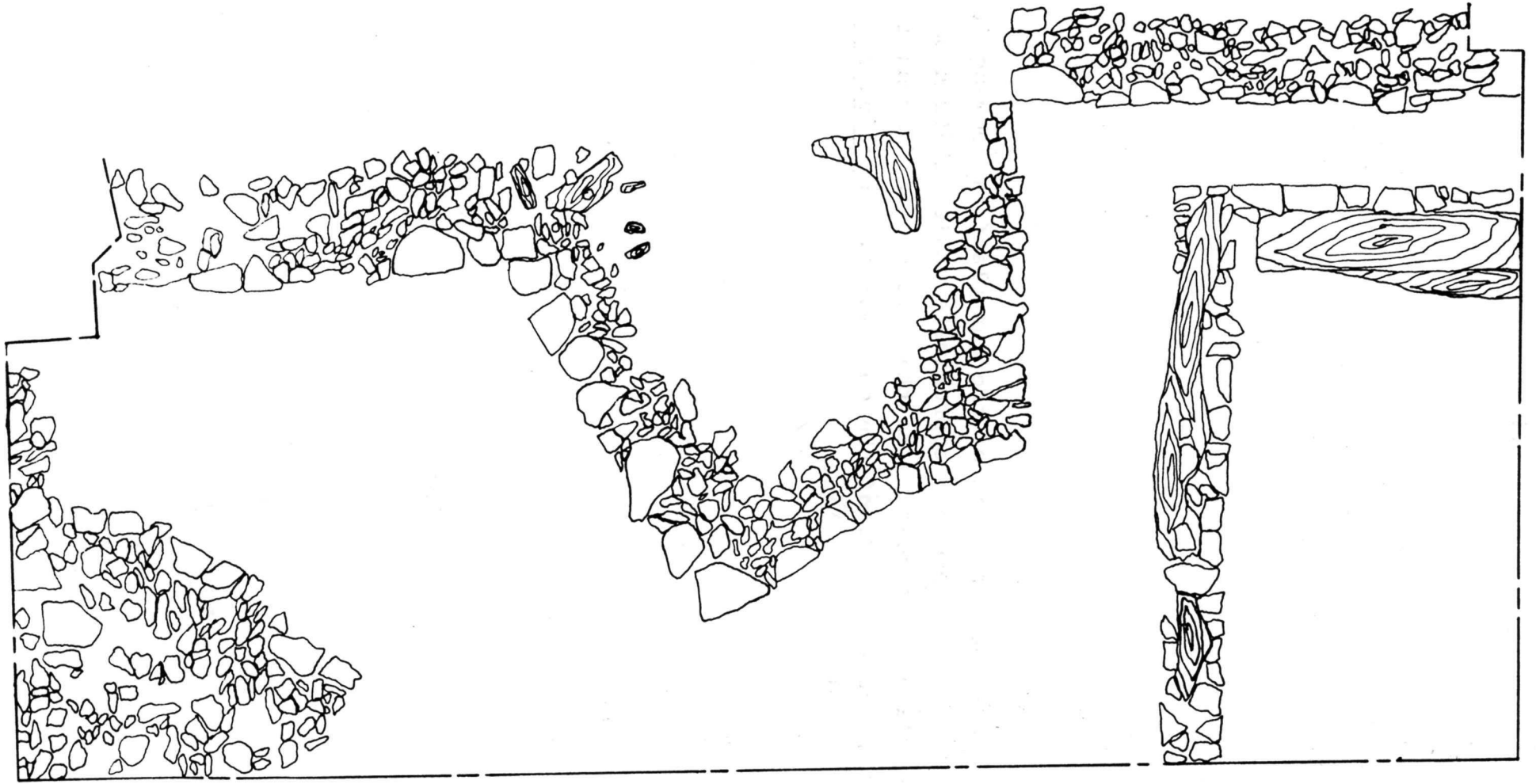
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. II		
HOSPITAL- MASTER CARPENTER'S QUARTERS		
DRAWN BY	SCALE	DATE
M. L.	0 2 4 6 8 10 FT	DEC. 1965

81 Gun platform after excavation, looking south. The southwest corner of the guardhouse is visible in the foreground. To the right of the guardhouse is the masonry retaining wall of the earthworks. To the west of the gun platform is an exploratory trench excavated in an unsuccessful attempt to find an early entrance to the fort.

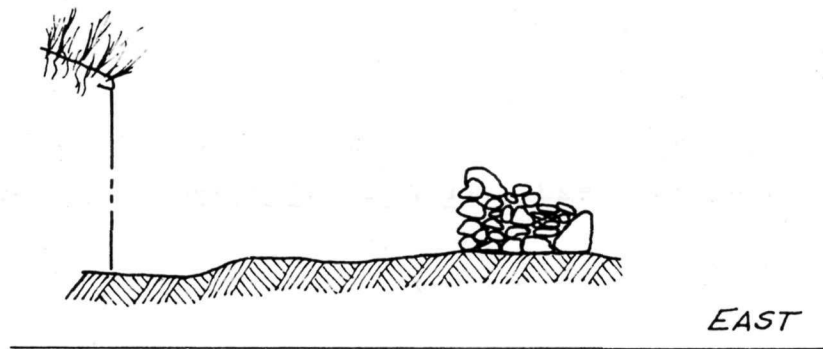
82 Masonry retaining wall; part of the earthworks retaining wall to the north of the gun platform.



- 83 Plan of the gun platform. The masonry wall forming the interior boundary of the earthworks is shown to the north and south of the platform. The southeast corner of the guardhouse may be seen to the right of plan. A part of a stone walkway is located to the south. (Plan by Michel Lapierre.)



- 84 An east-west section of the gun platform showing its eastern edge and the approximate angle of its upper surface. The feature to the left of the drawing is the interior side of the earthworks. (Section by A.E. Wilson.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CANADIAN HISTORIC SITES DIVISION

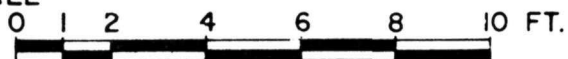
FORT COTEAU-DU-LAC

CROSS-SECTION OF STRUCTURE NO. 12

GUN PLATFORM

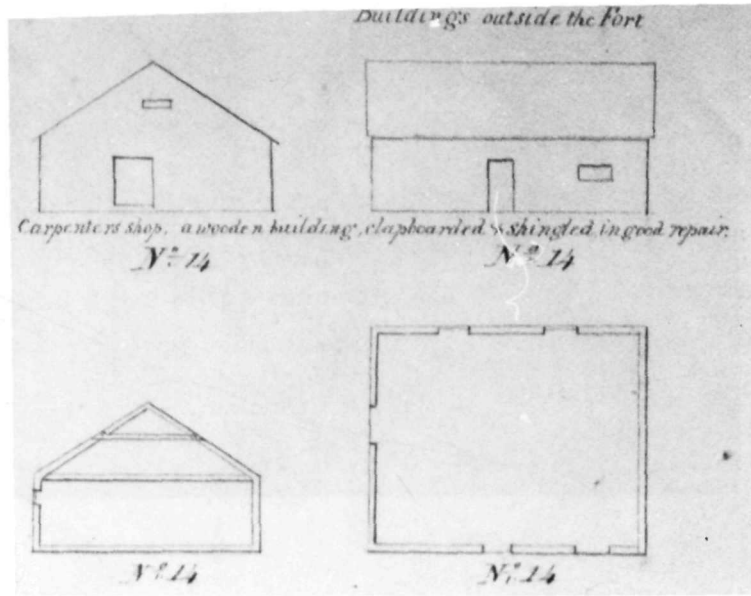
DRAWN BY
A. E. W.

SCALE



DATE
FEB. 1967

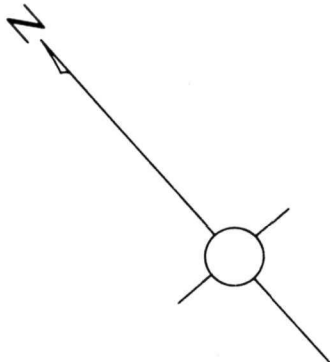
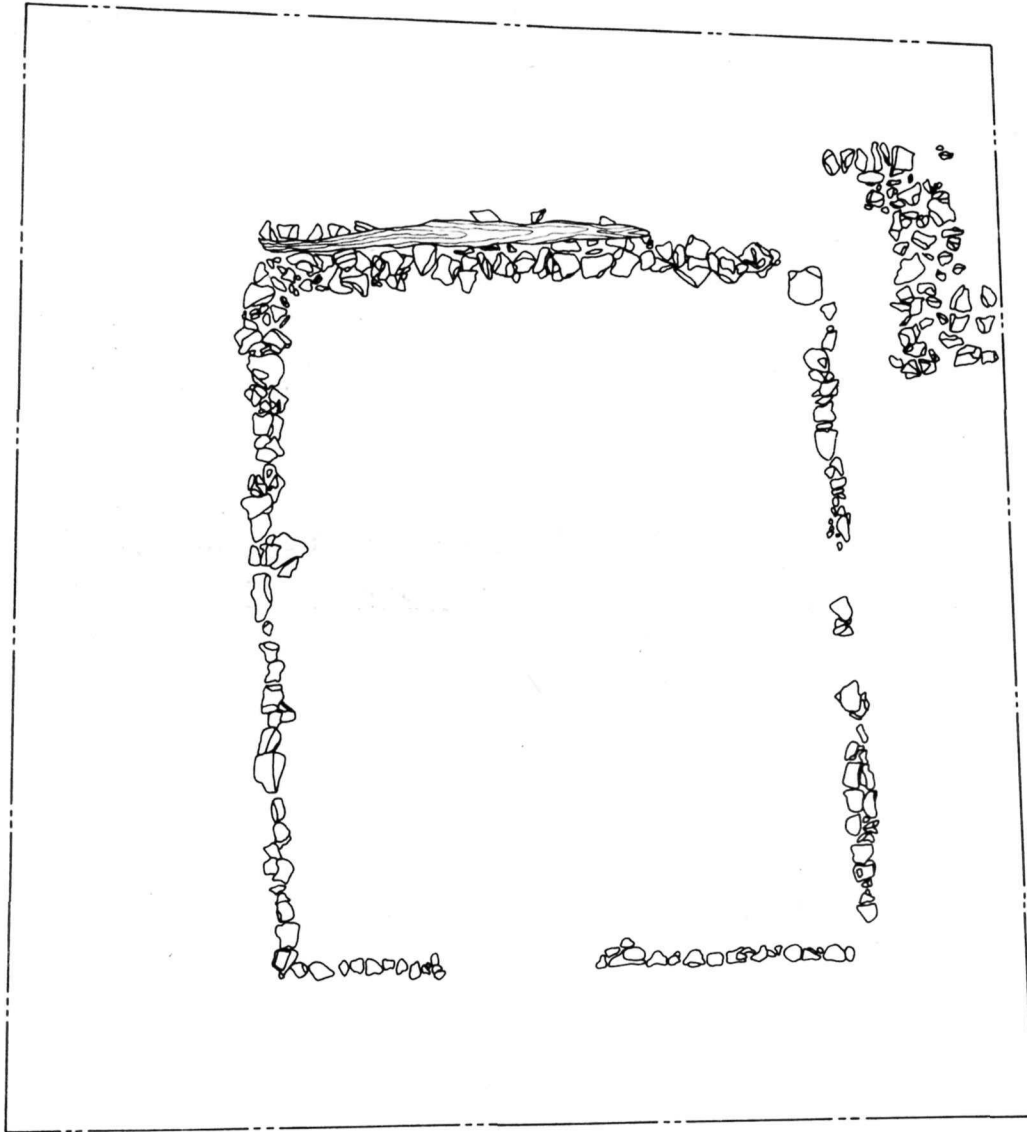
85 A plan and elevation of the carpenter's shop/stable
by Durnford, 1823. (Public Archives of Canada.)



- 86 Barracks/carpenter's shop/stable after excavation, looking southwest, showing the stone foundations and entrances. The trench at the centre of the building was excavated in an unsuccessful attempt to find an earlier structure.

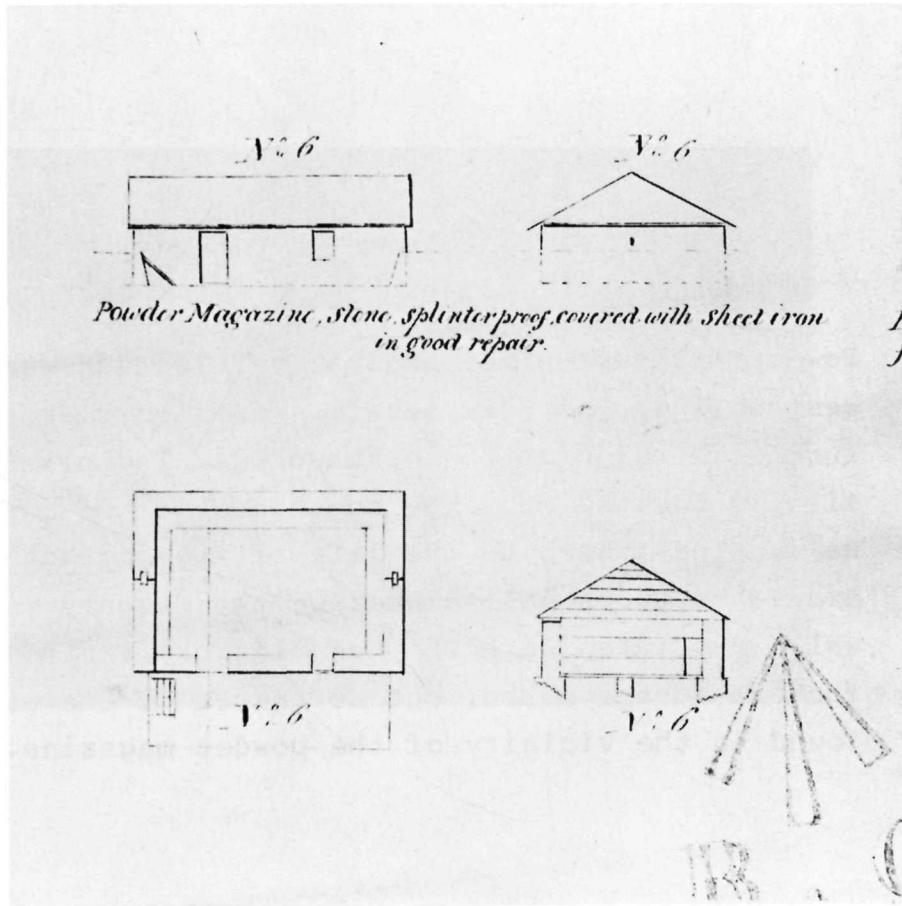


- 87 A plan of the carpenter's shop/stable showing the stone foundation and the remains of a wooden wall sill. Part of a stone walkway is visible in the area of the northwest corner of the building. (Plan by Michel Lapierre.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 13 BARRACKS- CARPENTER'S SHOP - STABLE		
DRAWN BY M. L.	SCALE 0 1 2 3 4 5 6 7 8 9 10 FT.	DATE DEC. 1968

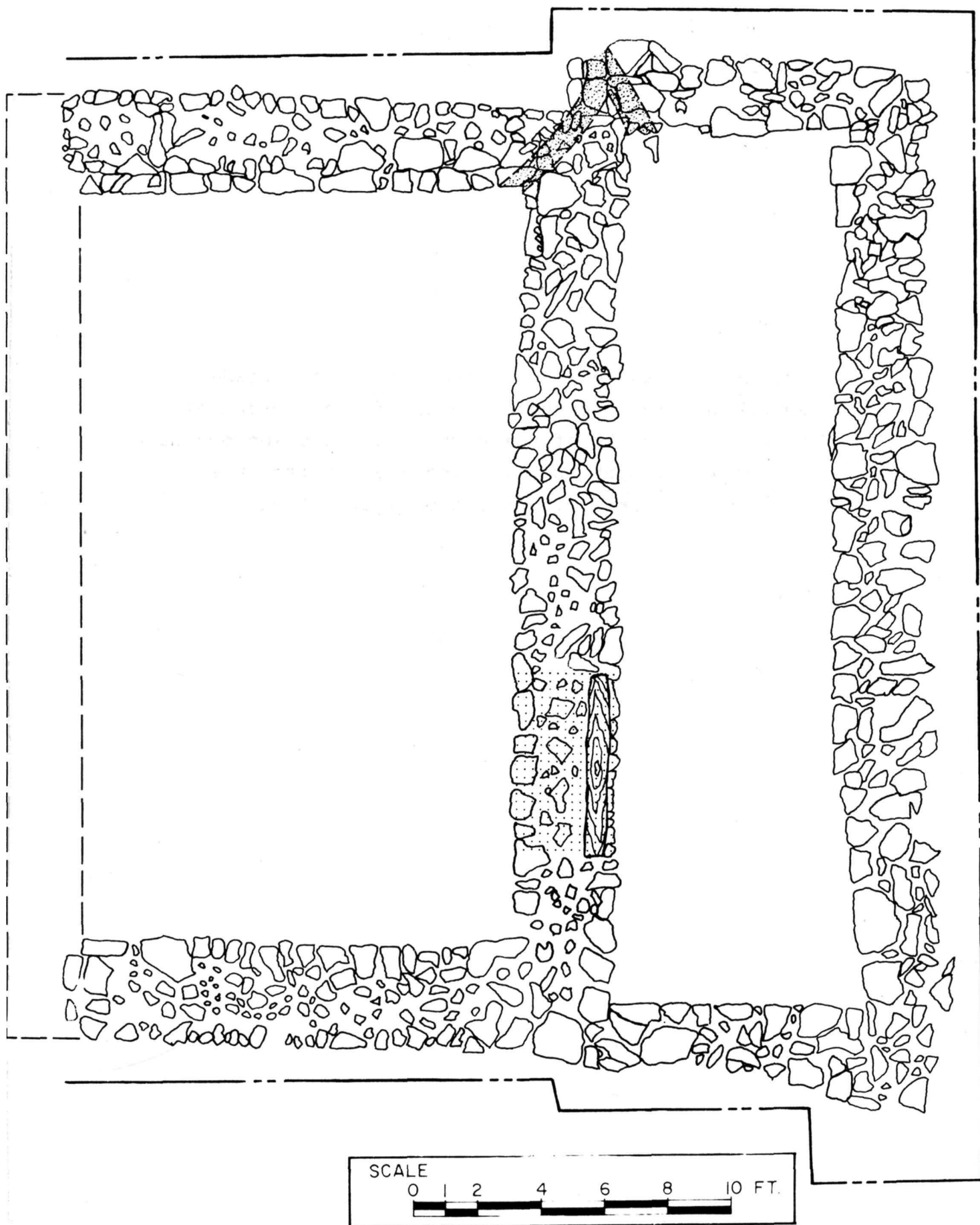
88 Plan and elevation of the powder magazine by
Durnford, 1823. (Public Archives of Canada.)



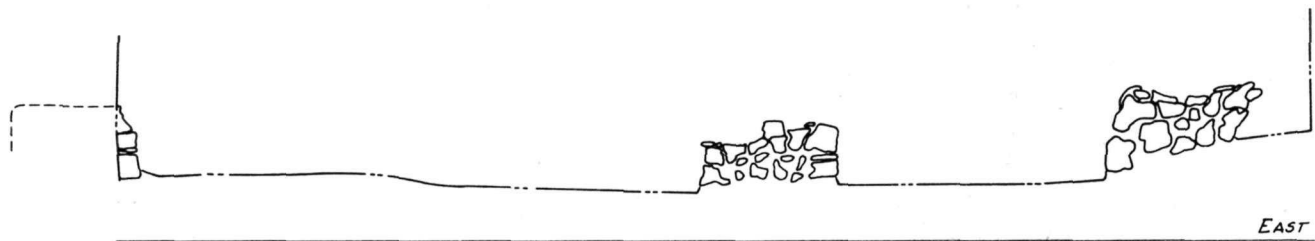
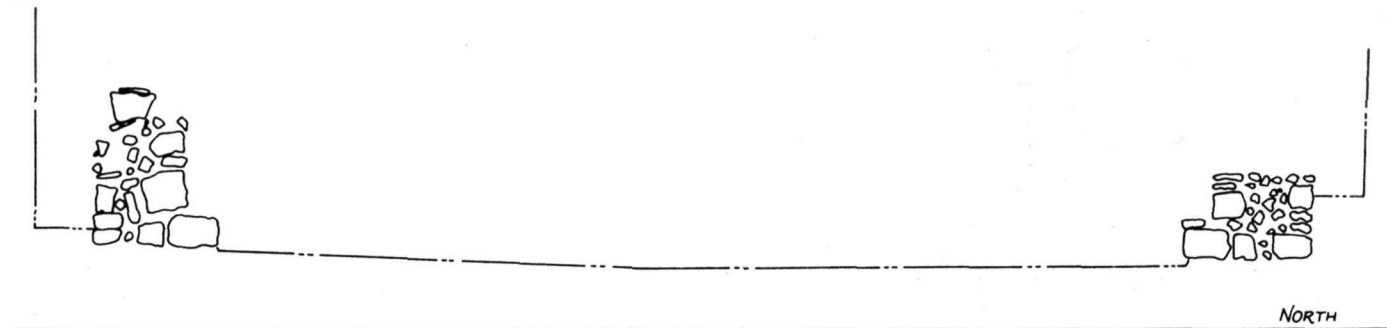
89 Powder magazine after excavation, looking west. The west wall was not completely excavated to prevent further erosion of the earthworks. The plank door sill is located near the south end of the centre wall. The trench to the left of the photograph was excavated to establish whether the masonry retaining wall associated with the gun platform extended further to the north, but no traces of the wall were found in the vicinity of the powder magazine.



- 90 Plan of the powder magazine showing the entrance way and door sill toward the south end of the centre wall, and the two drains to the north of the drawing; the former is indicated by light, and the latter by dark, stippling. (Plan by Michel Lapierre.)



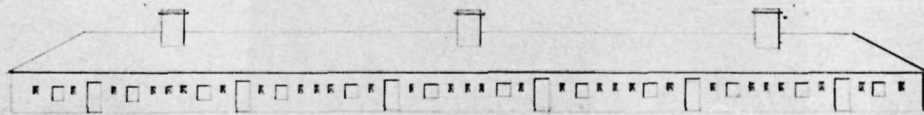
- 91 North-south and east-west sections of the powder magazine. The protruding edges of the footing at the base of the walls of the north-south section may have served to support the flooring used in the interior of the structure. (Sections by A.E. Wilson.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 14		
POWDER MAGAZINE		
DRAWN BY A. E. W.	SCALE 0 1 2 3 4 5 FT.	DATE FEB. 1967

- 92 A plan and elevation of the stone barracks by Durnford, 1823, showing the interior details of the structure, especially the plans and a section of the hearths and the distribution of furnishings. (Public Archives of Canada.)

Coteau du Lac.

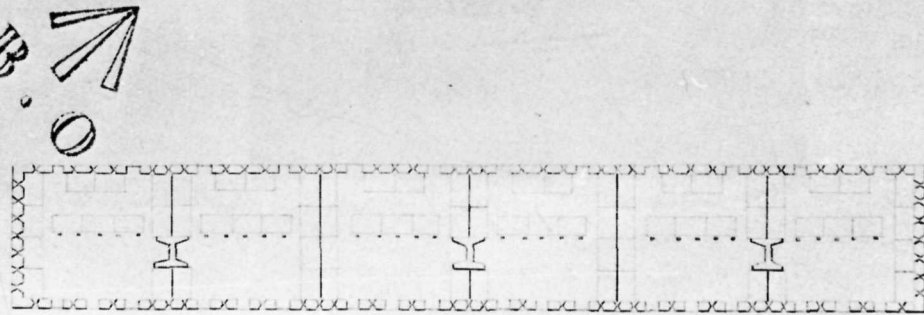


Stone splinter proof Buttrick for 285 men. lined roof. In good repair. N^o 6



N^o 6

*W. B. ...
Coteau du Lac*



N^o 6



N^o 6

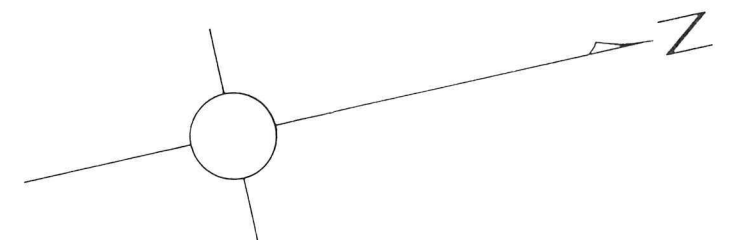
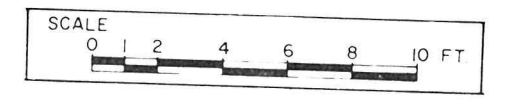
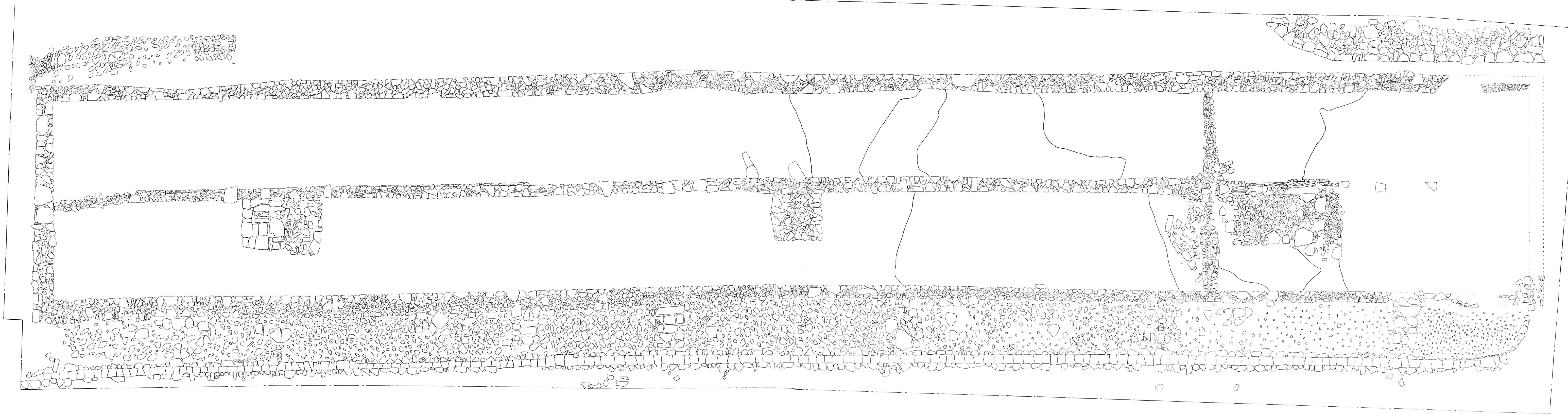
Scale 20 feet to an inch.

93 The stone barracks after excavation, looking north. Note the hearth bases, the central masonry bearing foundation and the walkway and drain on the east side of the structure. A fragment of walkway is visible in the lower left foreground.

94 A section of an elevated walkway in front of one of the entrances to the stone barracks. The scale on the north arrow is in metric feet.

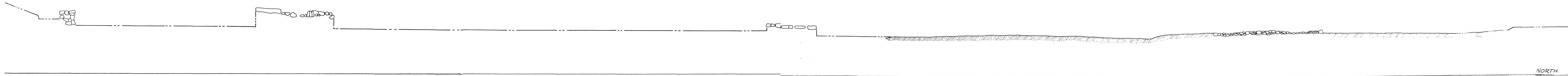
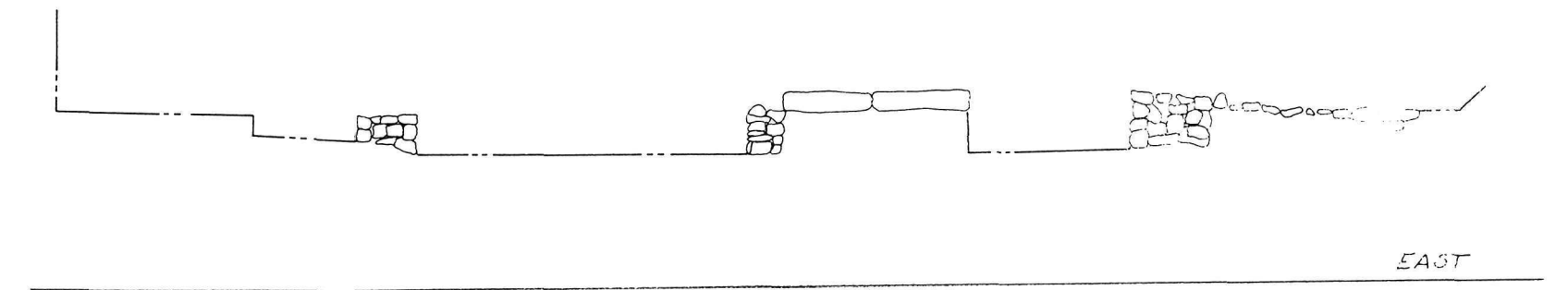


- 95 Plan of the stone barracks showing the masonry foundations, the hearth bases, the large flat slabs probably used as post supports along the central bearing foundation and the walkway on the east side of the structure. The approaches to the entrances were formed by paving stones larger than most of those used in forming the walkway. The narrow feature running along the eastern edge of the walkway is a masonry drain which slopes toward the south, where it ultimately runs into a sump. Another section of walkway is located along the southwest side of the building and a section of the principal walkway between the entrance to the fort and the bridge crossing the canal is to be seen in the upper righthand corner of the drawing. (Plan by J.-P. Cloutier.)

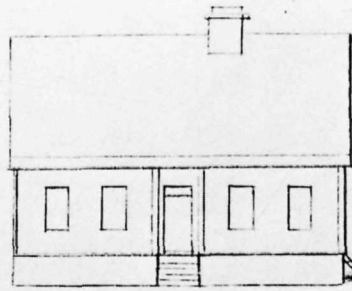


96 North-south and east-west sections of the stone barracks showing the hearth bases and foundations of the structure. (Sections by Michel Lapierre.)

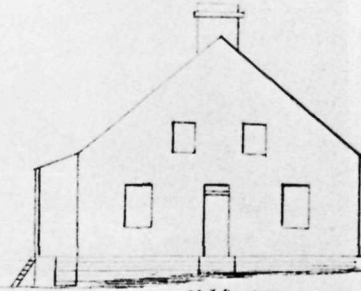
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 15		
STONE BARRACKS		
DRAWN BY M. L.	SCALE 0 1 2 4 6 8 10 FT.	DATE DEC 1966



- 97 Structural drawings of the commissariat officer's quarters/church by Durnford, 1823. (Public Archives of Canada.)

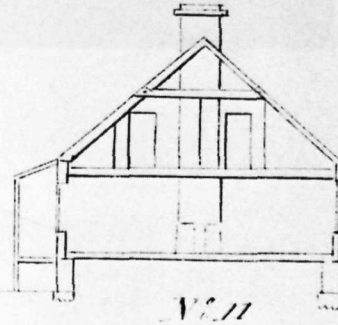
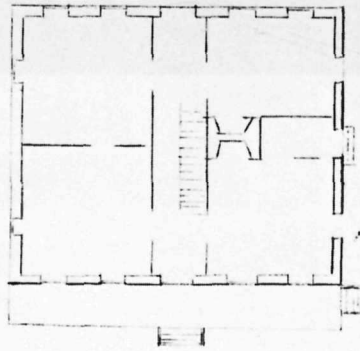


No. 11



No. 11

Commisariat Quarters, the same as the above.

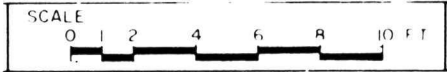
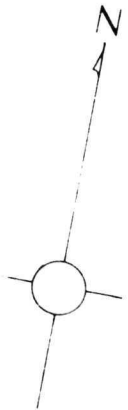
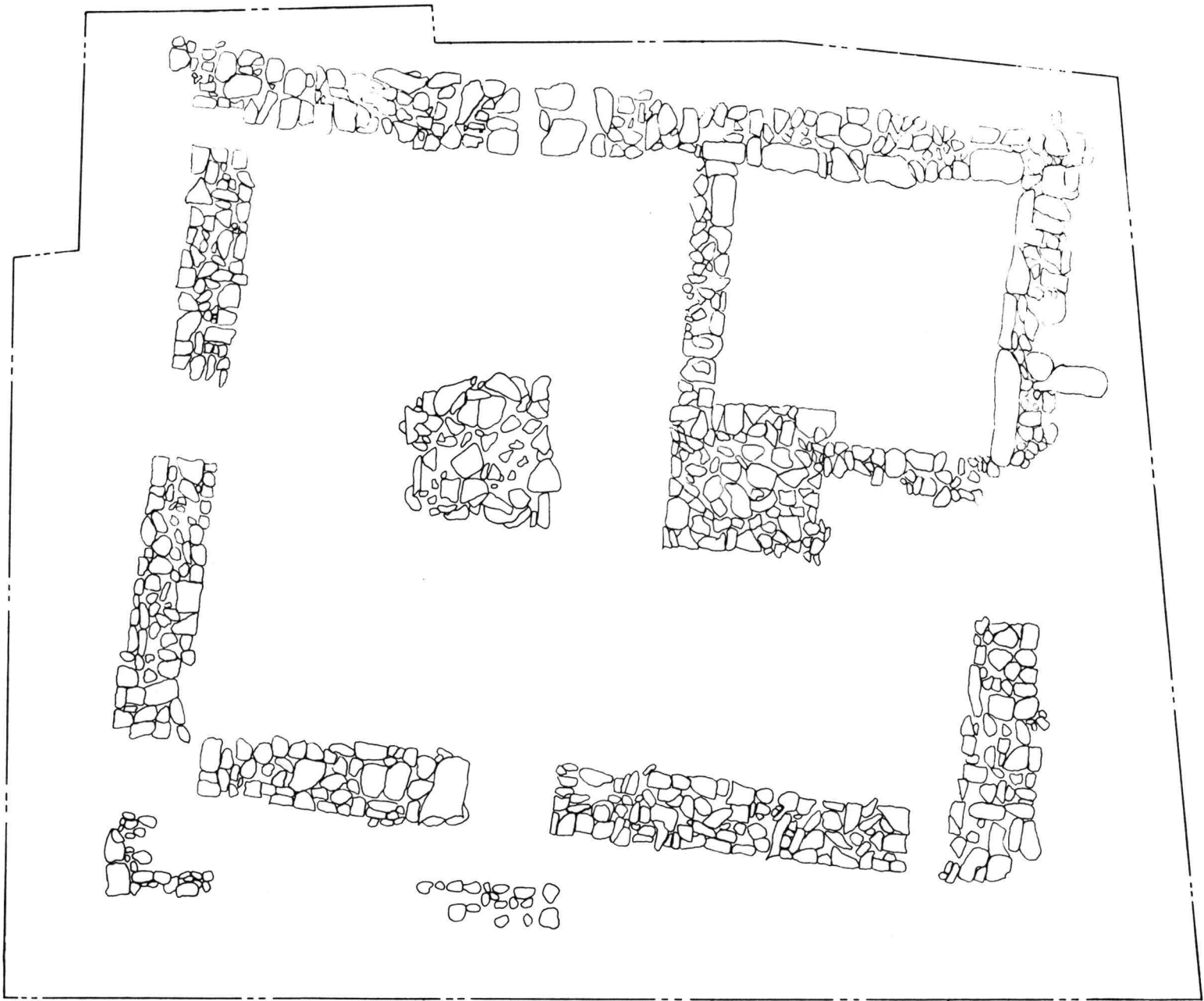


No. 11

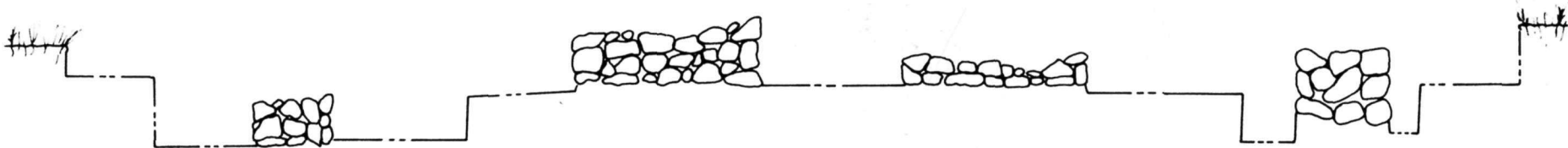
- 98 Commissariat officer's quarters/church after excavation, looking west. Note the small cellar in the upper righthand corner of the structure and the two masonry hearth bases at left and right centre of the photograph.



- 99 Plan of the commissariat officer's quarters/church showing the foundations, the masonry hearth bases (near the centre), the cellar in the northwest corner and the few stones probably belonging to the verandah. (Plan by Michel Lapierre.)



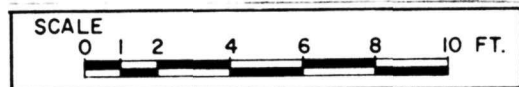
100 North-south and east-west sections of the commissariat officer's quarters/church, showing the masonry foundations and what are thought to be hearth bases. (Sections by Michel Lapierre.)



NORTH



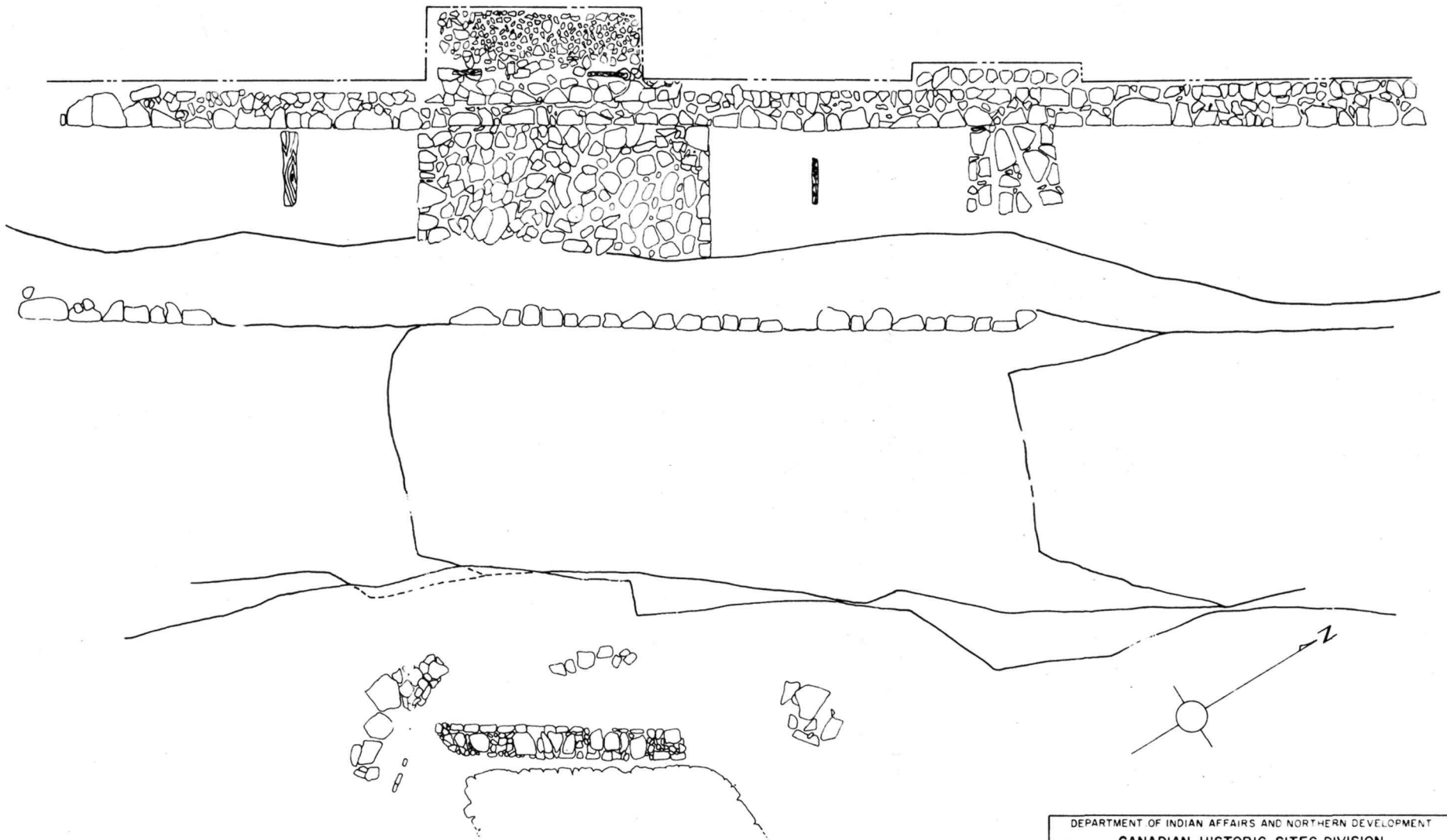
WEST



101 Western bridge abutment after excavation. In the upper background is the edge of the stone walkway.



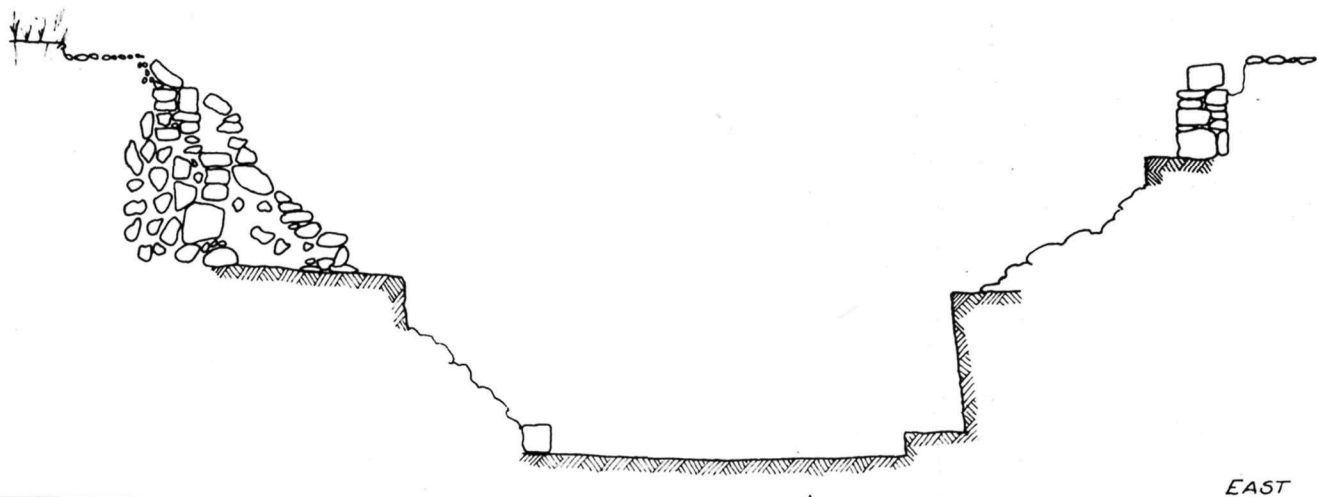
102 A plan of the bridge abutments on the east and west sides of the canal. The wood beams to the north and south of the western abutment are the bases or first steps of a stairway leading from the walkway along the west side of the canal to the bridge. This walkway bordered a masonry retaining wall which ran from the southeast corner of the storehouse/temporary officers' quarters to the northeast corner of the storehouse/gunshed, both fronting the west side of the canal. The low masonry feature to the north of the western bridge abutment has so far defied identification. The cracked stone feature joining the western bridge abutment is a part of the principal roadway between the entrance to the fort and the canal bridge. The two wood fragments found at the eastern end of this feature may represent the only remaining parts of the bridge. Unfortunately, only a masonry footing and a few fragments of masonry remained of the eastern bridge abutment. (Plan by J.-P. Cloutier.)



461

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 20		
BRIDGE ABUTMENTS		
DRAWN BY J. P. C.	SCALE 0 2 4 6 8 10 FT	DATE DEC. 1965

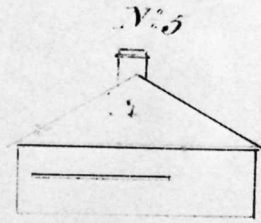
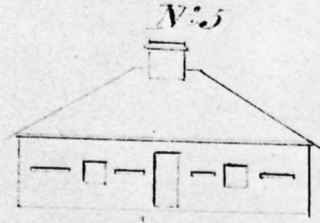
103 An east-west section of the bridge abutments and the canal. (Section by J.-P. Cloutier.)



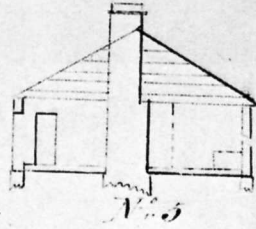
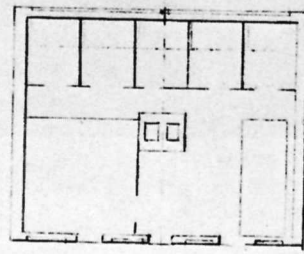
EAST

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
CROSS-SECTION OF STRUCTURE NO. 20		
BRIDGE ABUTMENTS		
DRAWN BY J. P. C.	SCALE 0 1 2 4 6 8 10 FT.	DATE DEC. 1965

104 A plan of the guardhouse by Durnford, 1823, showing the locations of the cells, the hearth and other interior features. (Public Archives of Canada.)



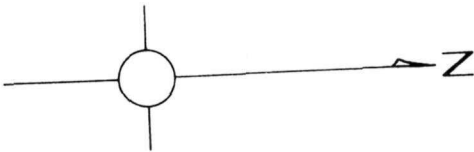
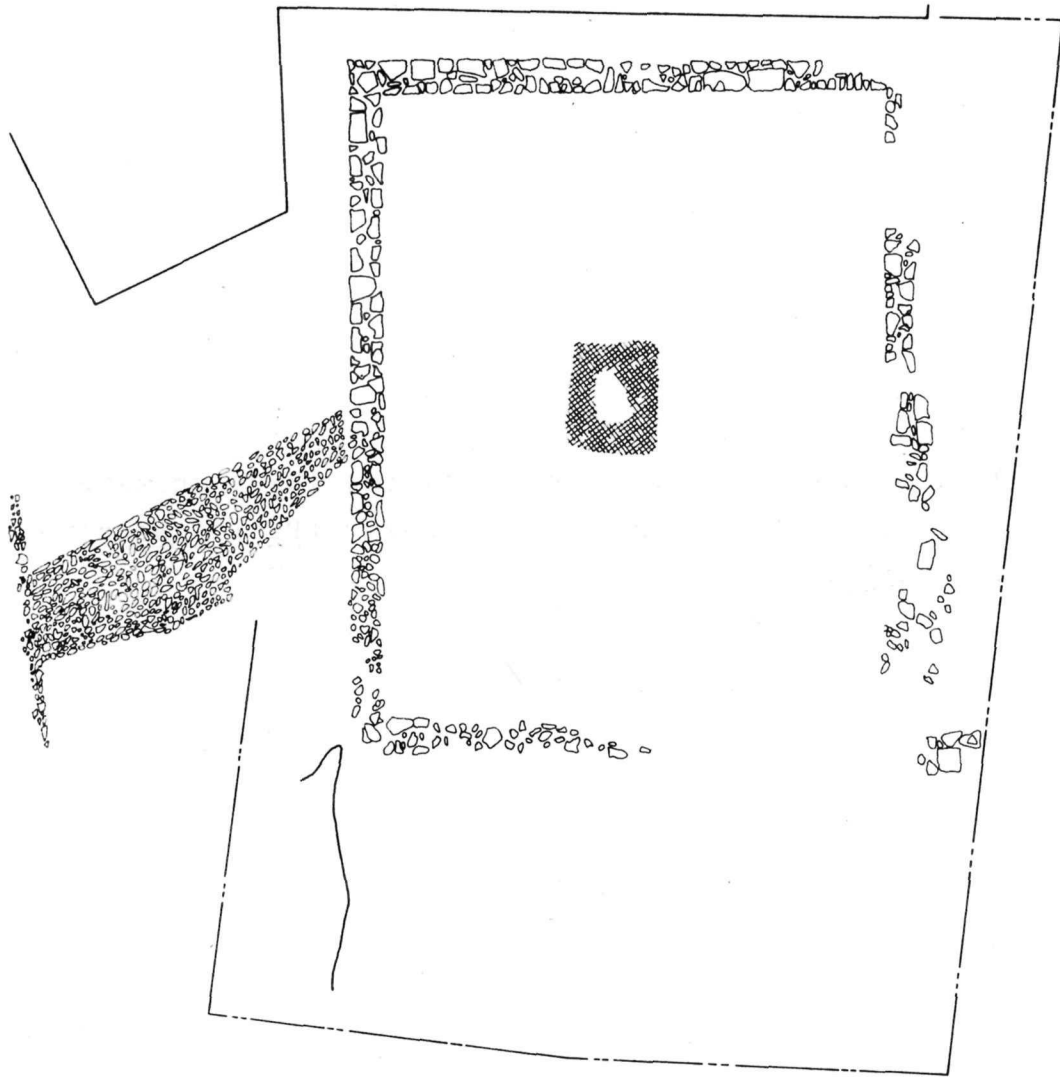
*Guard house, framed building, splinter proof, tinned roof
in good repair.*



- 105 Guardhouse after excavation, looking west. Note the fragmentary condition of the foundation in the foreground and at right. In the background to the left is the gun platform and on each side of it are stone retaining walls at the foot of the earthworks. Note also the bedrock.

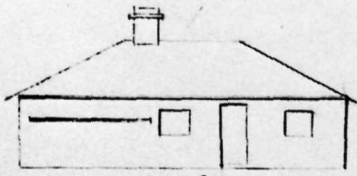


- 106 A plan of the guardhouse showing what remained of its stone foundation. The remnants of logs forming the base of the wall in the area of the southwest corner have not been included. The cross-hatched area is the centre of the building indicates the location of the hearth base, as ascertained by mortar stains on the bedrock. A narrow stone walkway leading to the principal walkway of the fort abuts the south wall of the structure. (Plan by J.-P. Cloutier.)

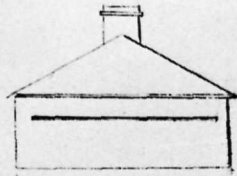


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 21		
GUARD HOUSE		
DRAWN BY T.C.W.R.	SCALE 0 1 2 4 6 8 10 FT	DATE MAY 1967

- 107 Plan of the bake house by Durnford, 1823, showing the ovens and other interior features. (Public Archives of Canada.)

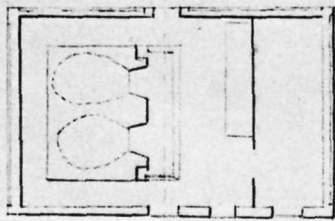


N^o 7

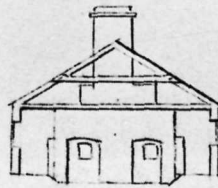


N^o 7

Bake house, framed log building and stone foundation, covered with tin; in good repair.



N^o 7

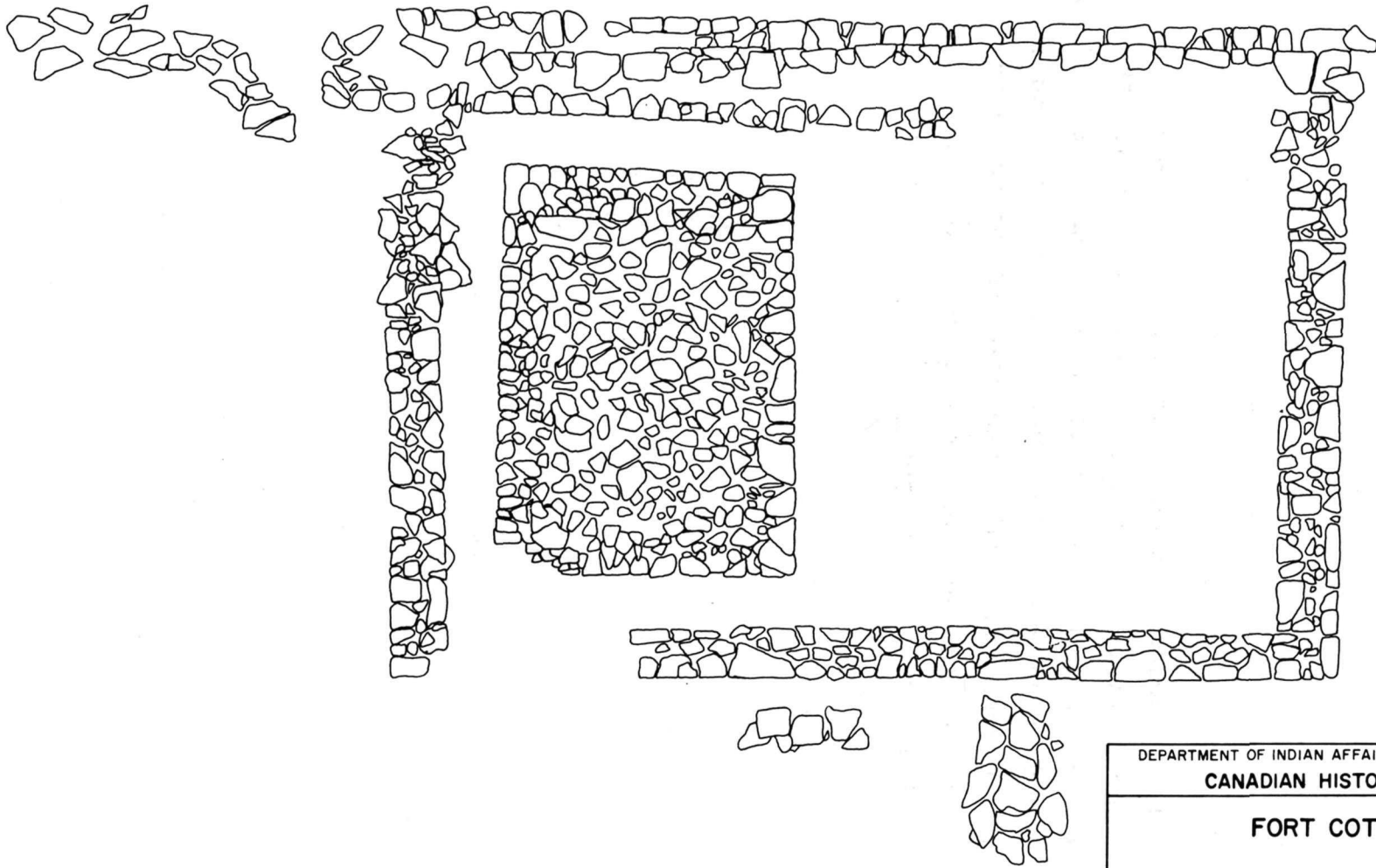


N^o 7

108 The bake house after excavation looking east. Note the gaps in the wall on the south side. The worker is cleaning the top of the hearth base.



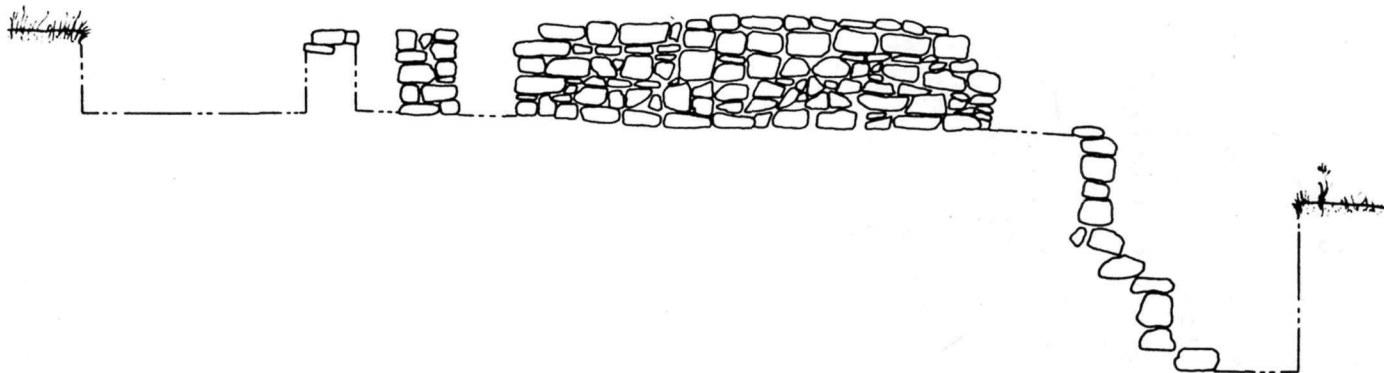
- 109 A plan of the bake house showing the masonry foundation, the oven base and the walkway leading to the entrance. The small feature to the west of the walkway, below the bake house window, may have been used as a step by people receiving baked goods through the window. The series of masonry foundation walls on the north side of the structure represent, from south to north, the remaining section of the rebuilt north foundation wall, the original north foundation wall (which collapsed in historic times) and the escarp facing the outer limit of the earthworks. (Plan by J.-P. Cloutier.)



475

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC GROUND PLAN OF STRUCTURE NO. 22 BAKE HOUSE		
DRAWN BY	SCALE 0 1 2 4 6 8 10 FT.	DATE

- 110 A north-south section of the bake house showing the masonry wall foundations and the oven base. The series of foundation walls forming the north side of the section are, from south to north, the rebuilt north foundation wall, the original north foundation (which collapsed) and the escarp facing the exterior of the earthworks. (Section by J.-P. Cloutier.)

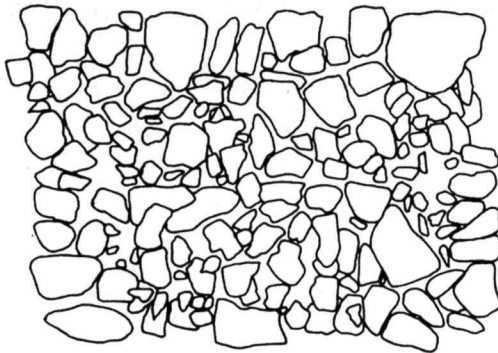
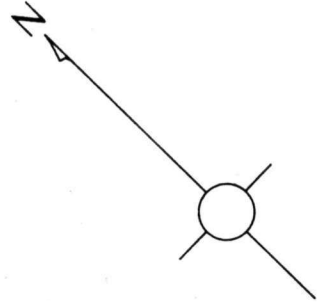
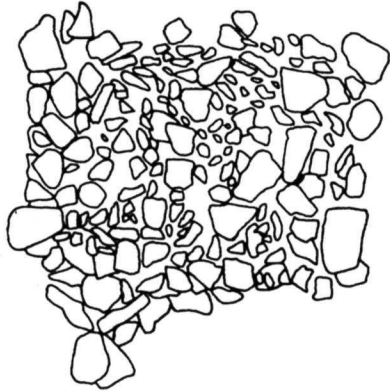


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC CROSS-SECTION OF STRUCTURE NO. 22 BAKE HOUSE		
DRAWN BY	SCALE 0 1 2 4 6 8 10 FT.	DATE

111 Barracks master's quarters, looking southwest. The two masonry hearth bases in the foreground illustrate the irregular placement of the unworked stones used in their construction.

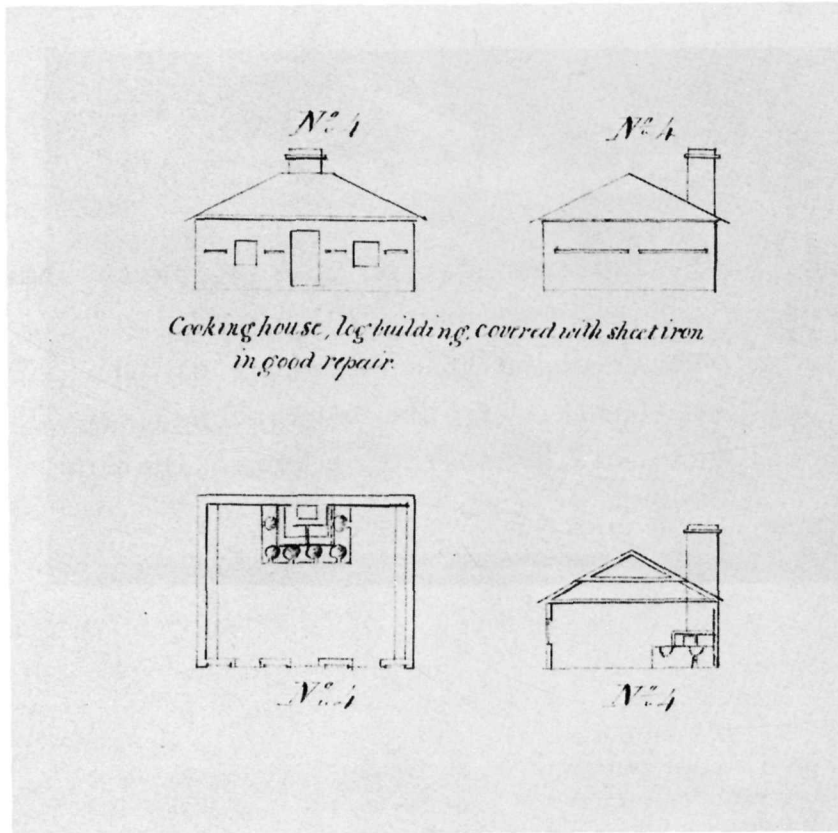


112 A plan of the two hearth bases of the barracks
master's quarters. (Plan by A.E. Wilson.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 23		
BARRACKS MASTER'S QUARTERS		
DRAWN BY A. E. W.	SCALE 0 1 2 3 4 5 FT. 	DATE OCT. 1967

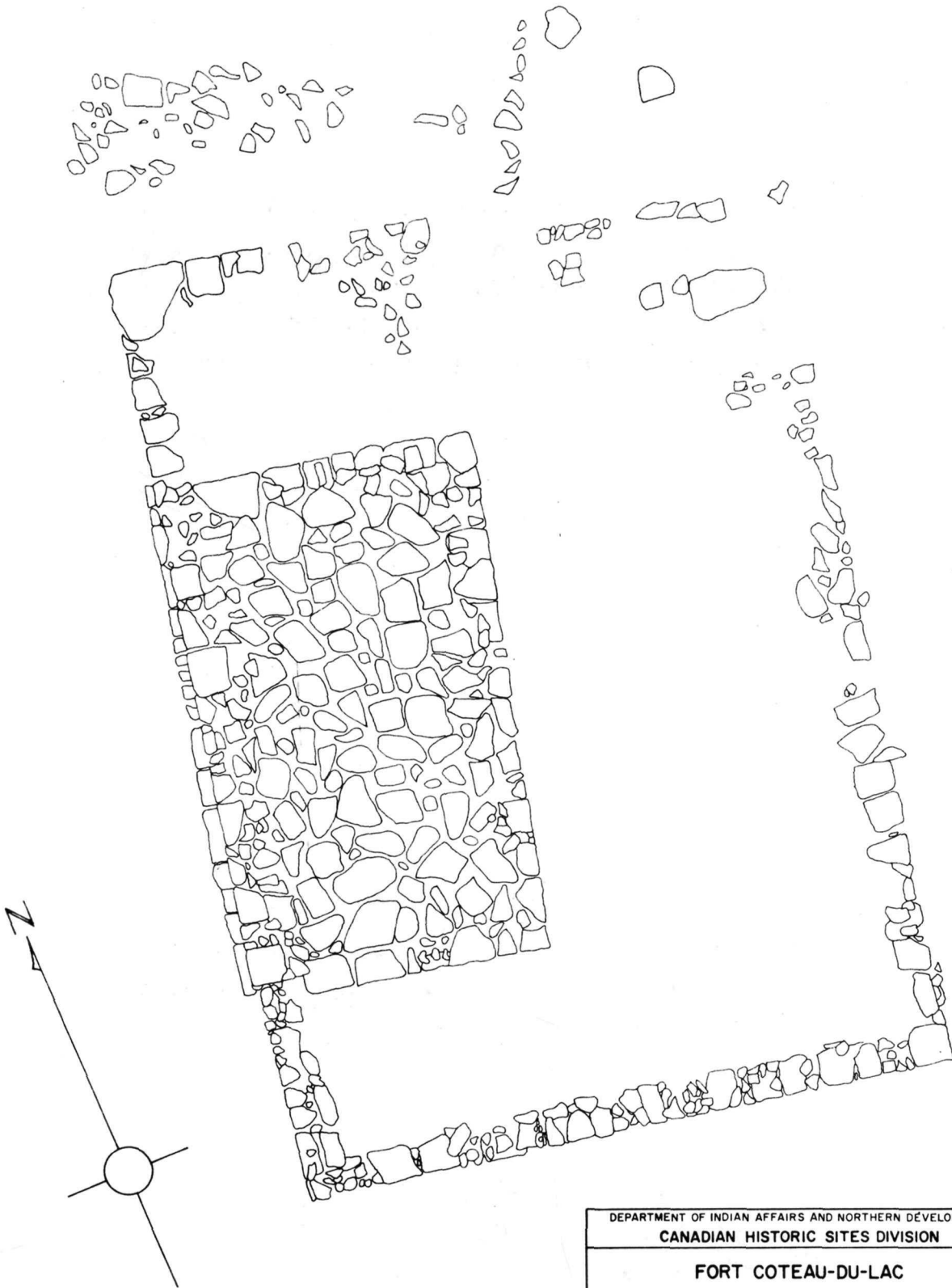
- 113 Structural drawings of the cooking house by Durnford, 1823. The plan and one of the sections show the six boilers used to cook food for the troops in the nearby stone barracks. (Public Archives of Canada.)



114 Cooking house after excavation looking east, showing the foundations and the base of the cooking apparatus. The T-shape in the centre of the structure is a baulk. In the background, the storehouse/gunshed is undergoing consolidation.



- 115 Plan of the cooking house showing the foundation walls and the base of the boilers. (Plan by J.-P. Cloutier.)



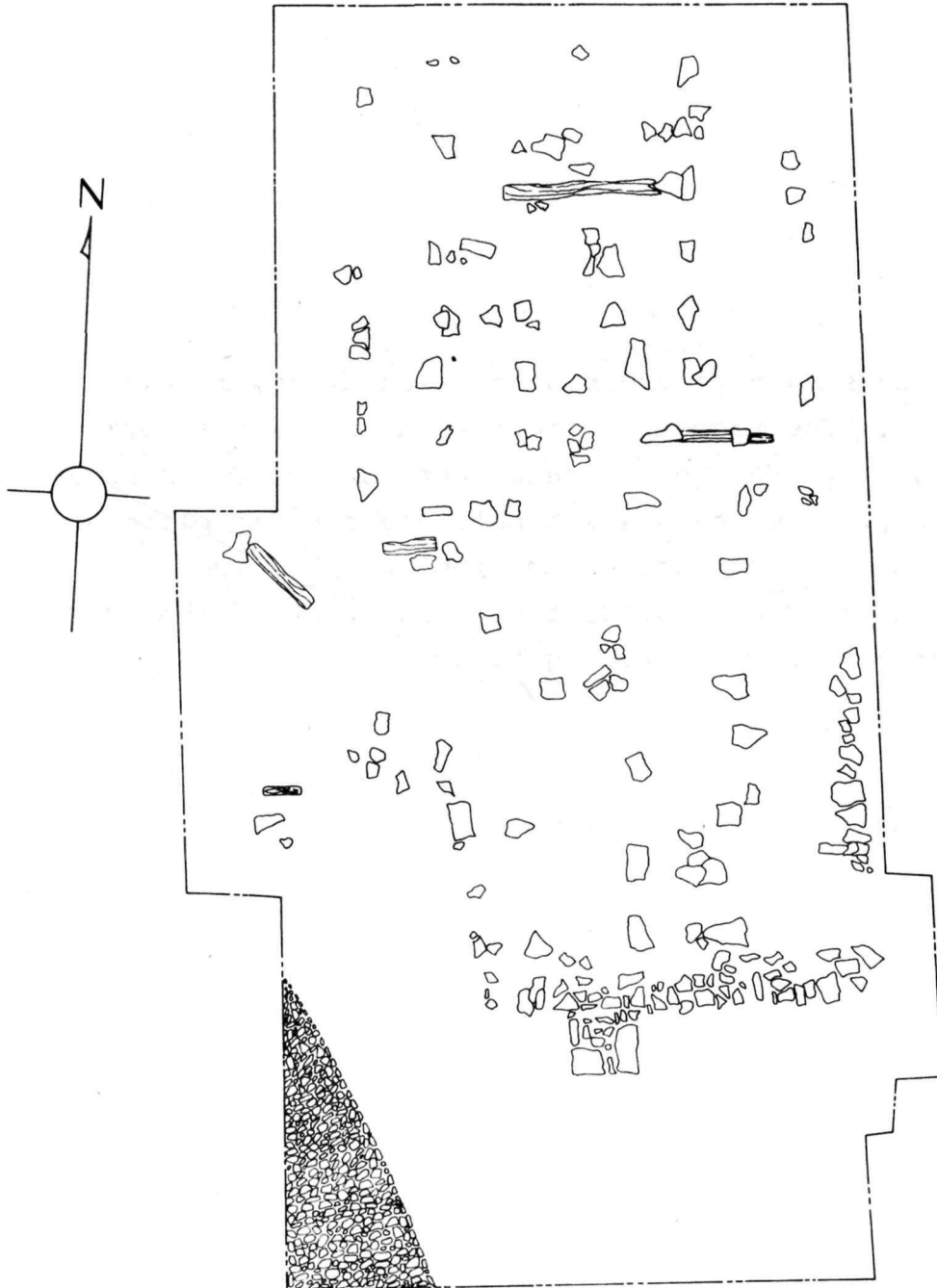
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 24		
COOKING HOUSE		
DRAWN BY	SCALE	DATE
T.C.W.R.	0 1 2 3 4 5 FT.	MAY 1967

116 The barracks/store after excavation, looking east. The masonry hearth base and foundation wall are to the right of the foundation. Single stones are used to support the floor joists. At the left are the remains of a stone walkway abutting the north end of the structure.

117 The barracks/store during excavation, looking north. Note the masonry hearth base and the north foundation wall in the foreground.



- 118 A plan of the barracks/store showing the stone foundations and joist supports, sections of wooden joists and the masonry chimney base outside the building near the centre of the south wall. The feature to the southwest of the building is part of the stone walkway running from the entrance of the fort to the bridge crossing the canal. (Plan by J.-P. Cloutier.)

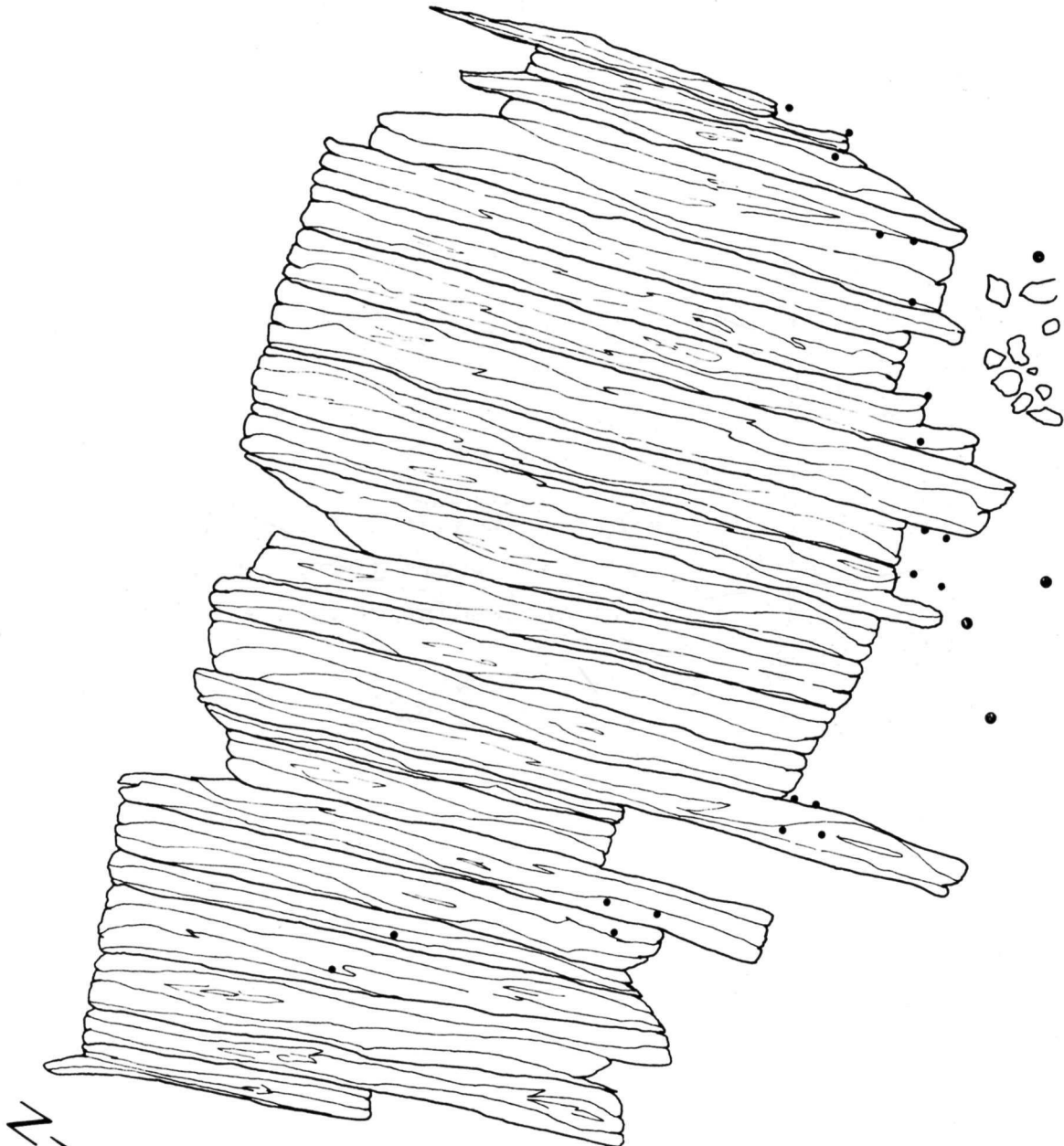


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
GROUND PLAN OF STRUCTURE NO. 25		
BARRACKS STORES		
DRAWN BY T.C.W.R.	SCALE 0 2 4 6 8 10 FT.	DATE MAY 1967

119 Southeast gun platform after excavation, looking south. The uneven configuration of the platform is caused by the sunken areas where the sleepers have rotted. The nails which held the rail in place are visible at the left of the photograph. The unexcavated area at centre is not part of the gun platform but a surveying stake.



- 120 Plan of the southeast gun platform showing the planks and the row of nails which anchored the racer in position. The nails are shown by solidly-coloured dots and the striped circles represent wooden pegs. (Plan by J.-P. Cloutier.)

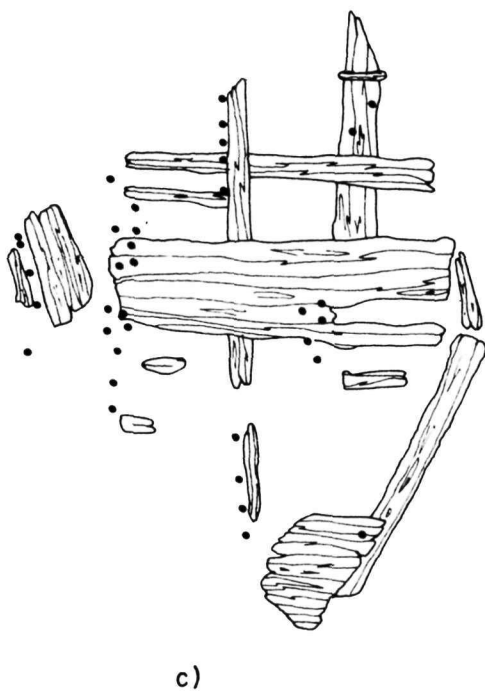
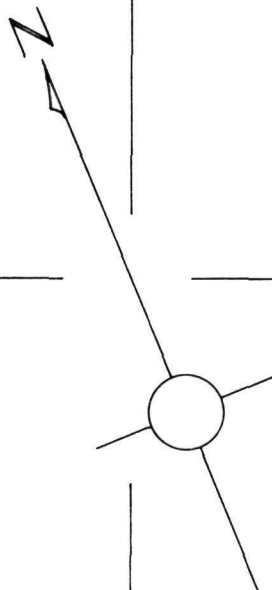
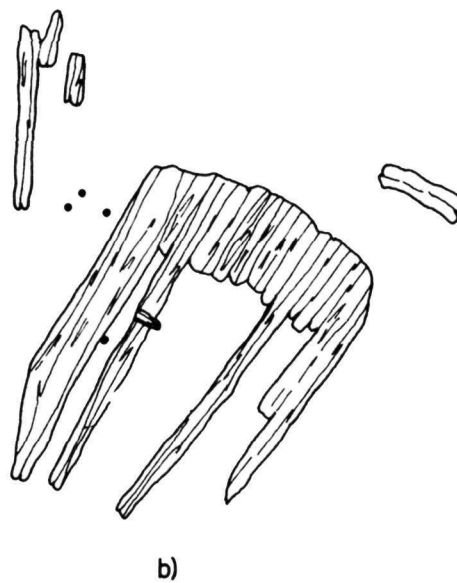
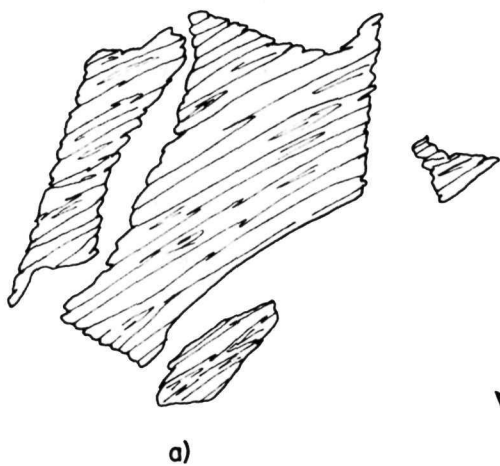


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
SOUTH-EAST GUN PLATFORM		
DRAWN BY T.C.W.R.	SCALE 0 1 2 3 4 5 FT.	DATE MAY 1966

121 Northwest gun platform after excavation, looking east, showing the sunken areas where the sleepers have rotted and the nails protruding from the rotted platform planks.



122 Plan of (a) the northwest, (b) the southwest, and (c) the northeast gun platforms. (Plans by J.-P. Cloutier.)

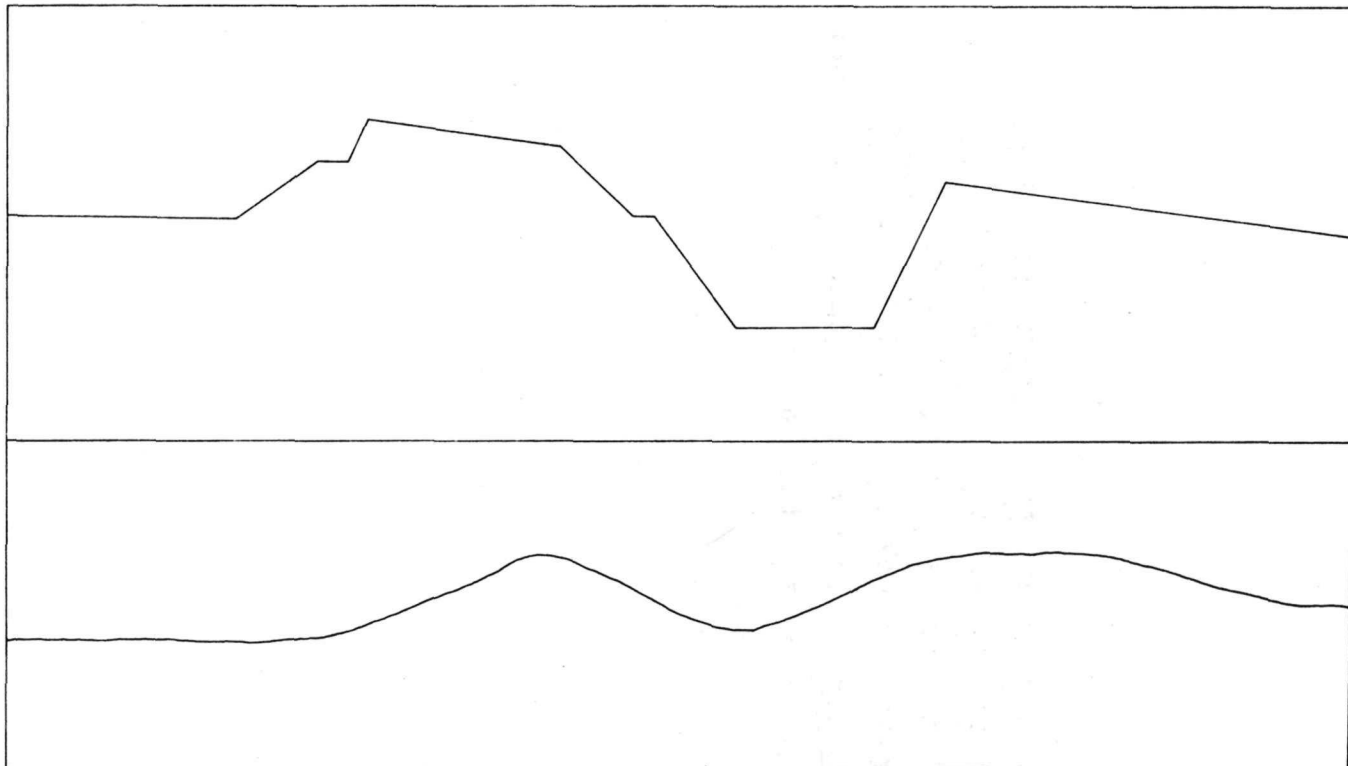


DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC GROUND PLAN OF a) North-West b) South-West c) North-East GUN PLATFORMS		
DRAWN BY T.C.W.R.	SCALE 0 1 2 4 6 8 10 FT	DATE MAY 1967

123 Southwest gun platform after excavation, looking west, showing the depressions caused by rotted sleepers and the nails protruding from the rotted planks.



124 Two sections; (a) represents the earthworks between the guardhouse and the powder magazine as drawn in 1816 (see Fig. 6). The 1966 section (b) from virtually the same location demonstrates the erosion and filling that had taken place over 150 years. (Section by A.E. Wilson.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
CANADIAN HISTORIC SITES DIVISION

FORT COTEAU-DU-LAC
EARTHWORKS PROFILE BETWEEN
GUARDHOUSE AND POWDER MAGAZINE
1816 - 1966

DRAWN BY
T.C.W.R

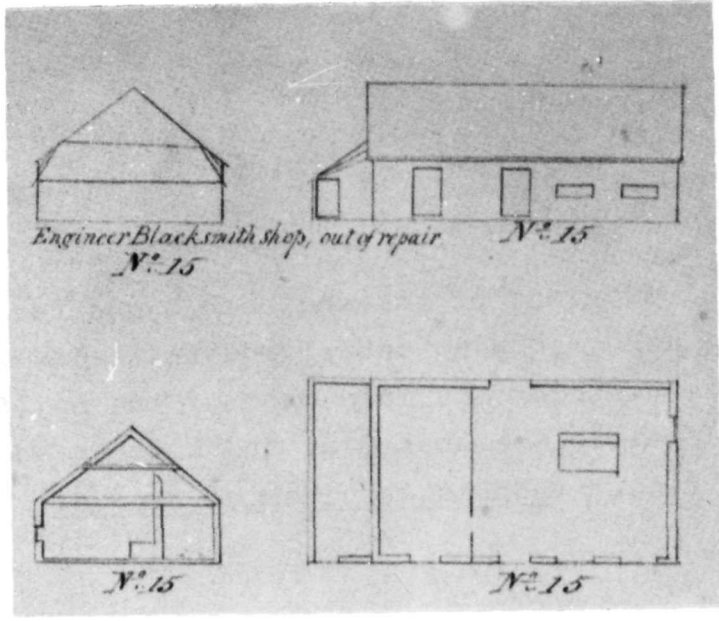
SCALE
1"=10FT.

DATE
MAY 1966

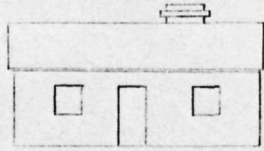
125 Officers' servants' quarters, looking northeast. Excavation did not reveal any remains of this structure, or of other structures located here according to plans of the fort. Only a large quantity of randomly distributed unworked stones were uncovered, as well as a refuse area.



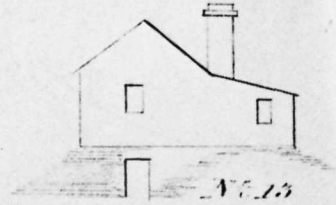
- 126 Structural drawings of the engineer blacksmith shop by Durnford, 1823, showing a plan and section view of the forge. (Public Archives of Canada.)



- 127 Structural drawings of the engineer's quarters by Durnford, 1823, showing interior details including a full basement under the main part of the building and the double fireplace shared by the kitchen and the main building. (Public Archives of Canada.)

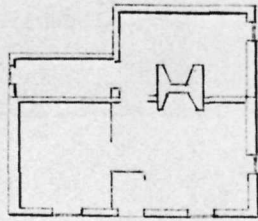


N^o. 13

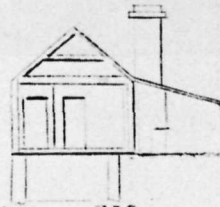


N^o. 13

Engineer Quarters, the same as above.

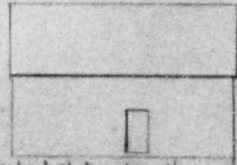


N^o. 13



N^o. 13

128 Structural drawings of the ox stable/commissariat
barn by Durnford, 1823. (Public Archives of Canada.)

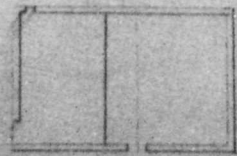


Comm. Barn in a very bad state not worth repairing. N^o 17

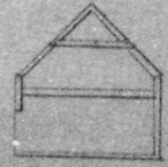
B, O



N^o 17



N^o 17

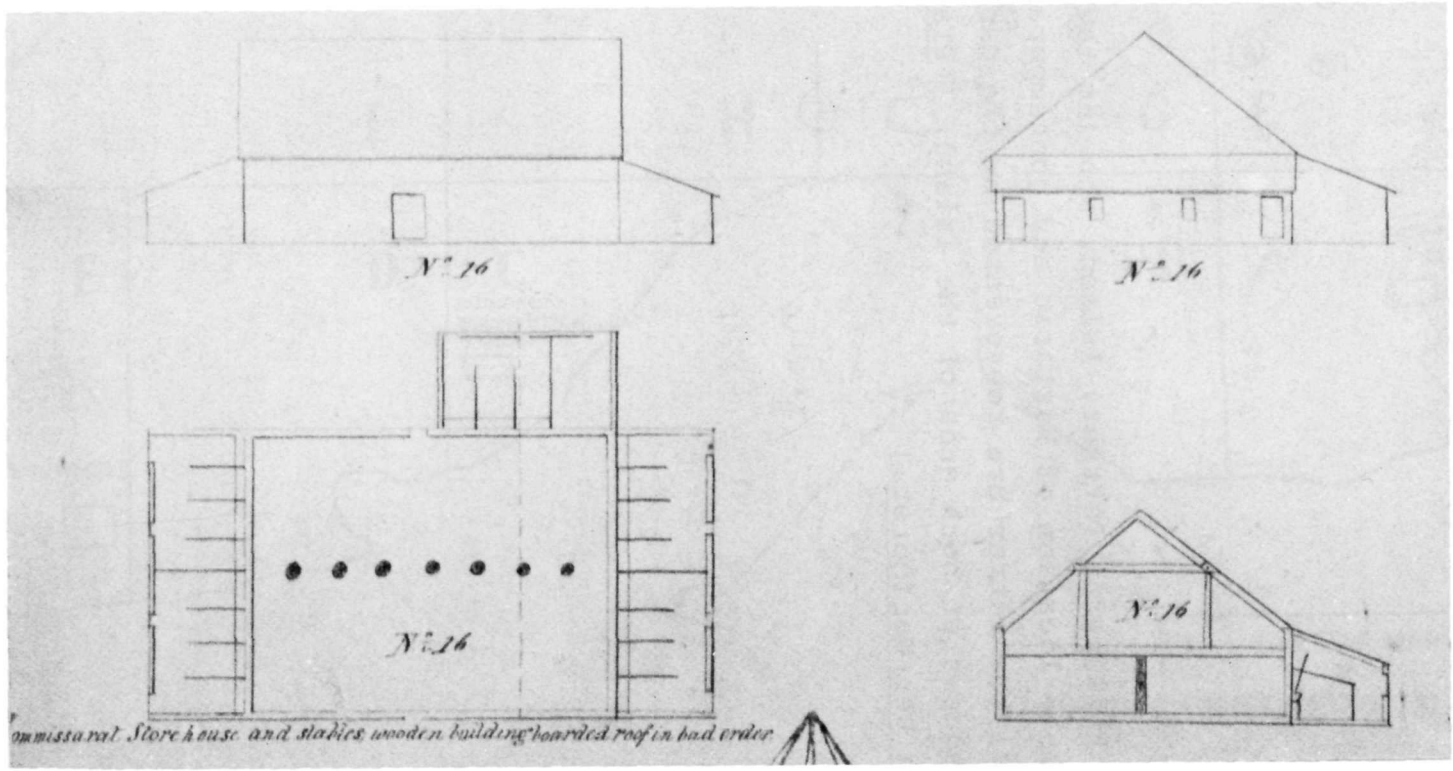


N^o 17

W. Dumberford
Amherst
Canada

Scale 20 feet to an inch.

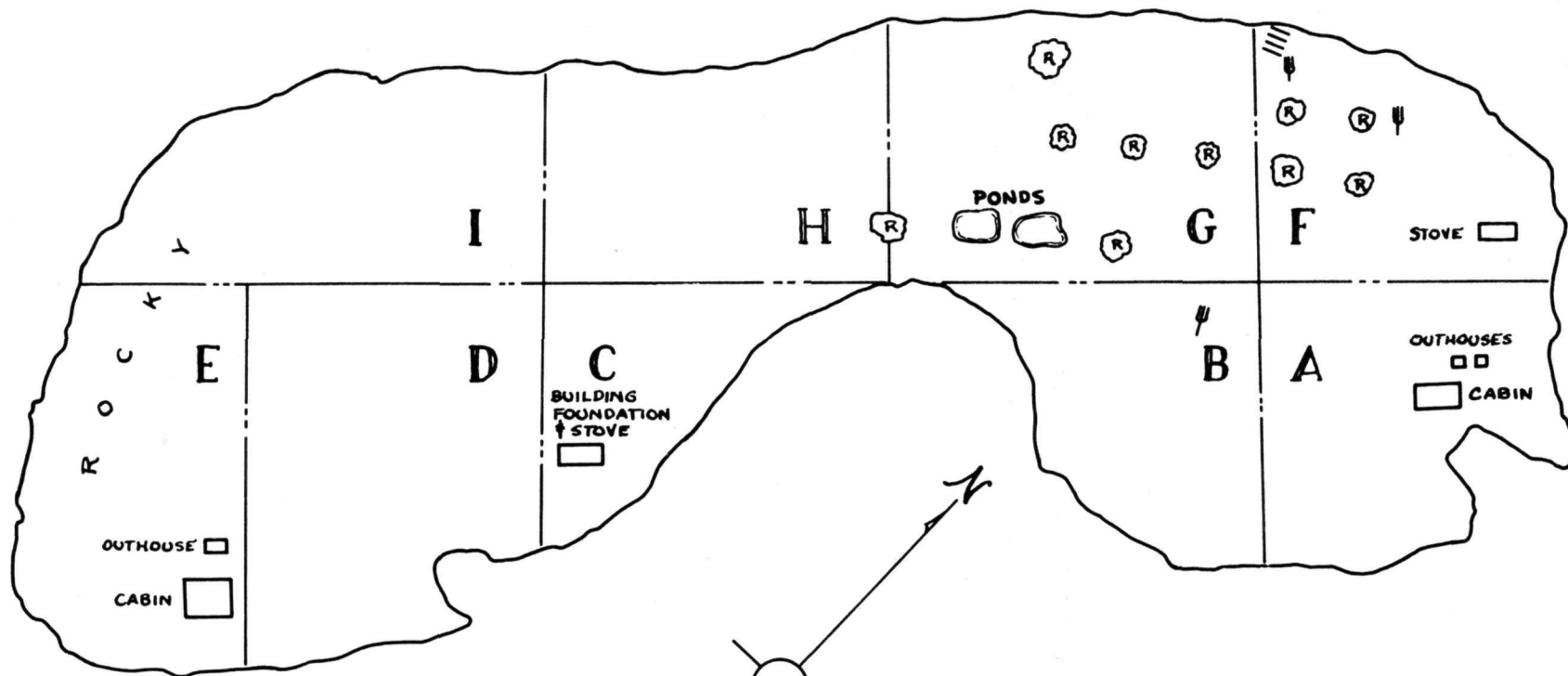
- 129 Structural drawings of the commissariat storehouse and stables by Durnford, 1823, showing interior details. (Public Archives of Canada.)



Commissariat Store house and stables wooden building boarded roof in bad order

- 130 Plan of Prisoner's (Arthur) Island, showing the approximate location of historic and contemporary features; the latter are represented by the cabins and outhouses at both ends of the island. (Plan by Hans Van Der Werfhorst.)

TO THE FORT



OUTHOUSE

CABIN

BUILDING
FOUNDATION
↑
STOVE

PONDS

OUTHOUSES

CABIN

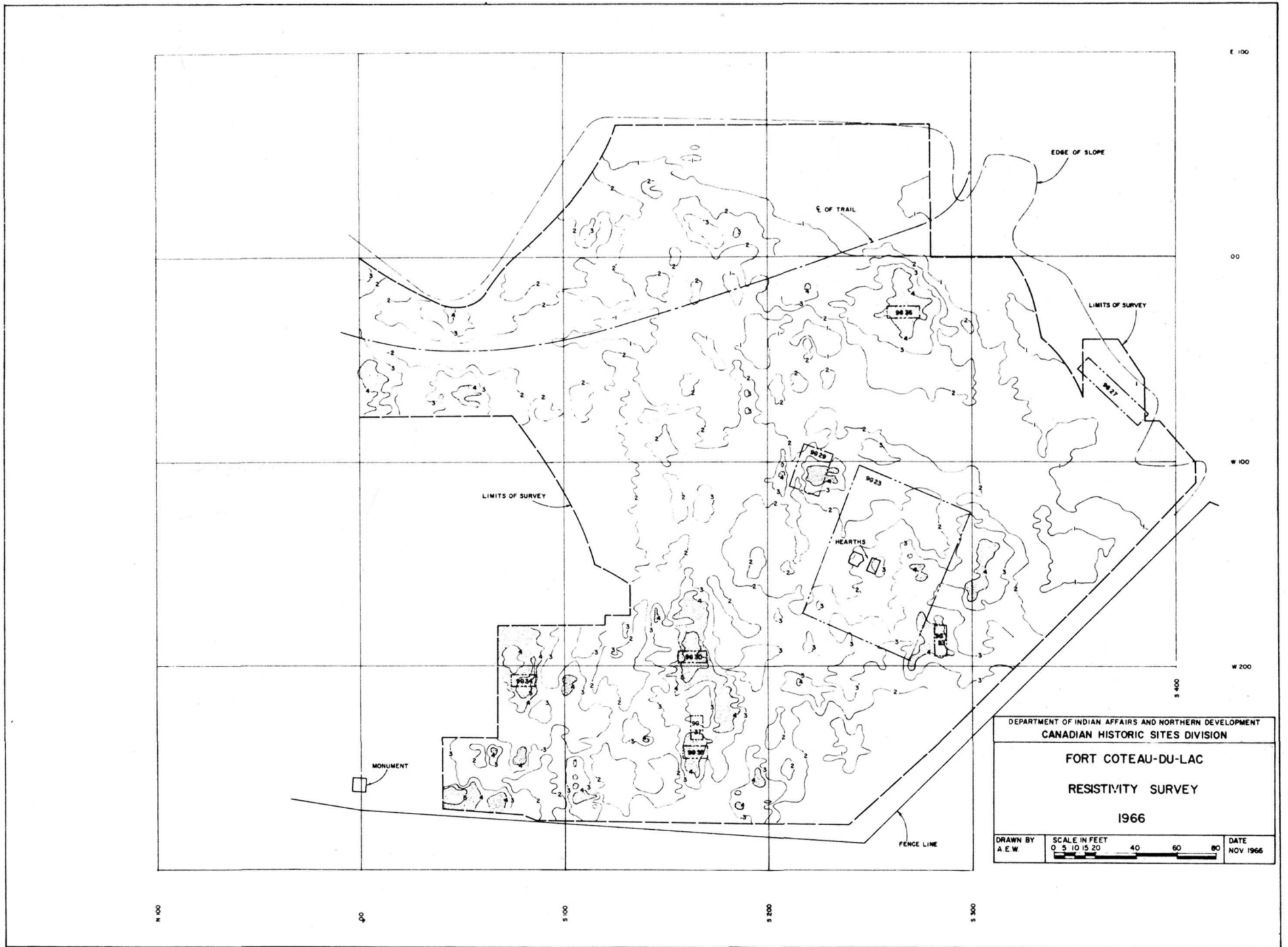
ψ - PITCHFORK

Ⓡ - ROCK PILE

SKETCH MAP
OF
PRISONER'S ISLAND
OR
ARTHUR ISLAND
COTEAU-DU-LAC, P. Q.

BY
HANS VAN DE WERFHORST
MAY, 1966.

- 131 A plan showing the anomalies recorded during a resistivity survey of the grounds to the west of the fort. (Plan by A.E. Wilson.)



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT		
CANADIAN HISTORIC SITES DIVISION		
FORT COTEAU-DU-LAC		
RESISTIVITY SURVEY		
1966		
DRAWN BY A. E. W.	SCALE IN FEET 0 5 10 15 20 40 60 80	DATE NOV 1966

132 The octagonal blockhouse: general view of excavation
from north.

133 The octagonal blockhouse: general view of excavation
from south.



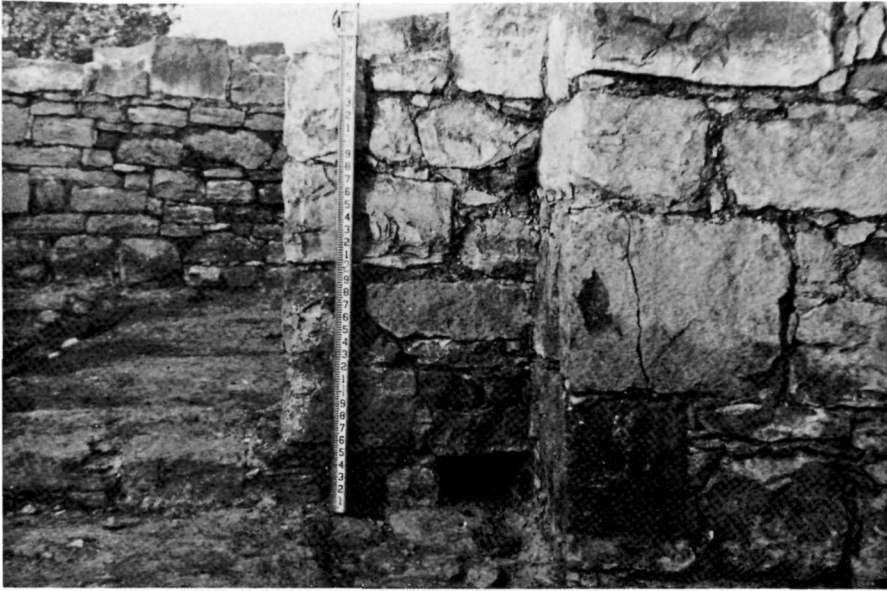
134 The octagonal blockhouse: general view of excavation from west.

135 The octagonal blockhouse: detail of flooring on southwest side of cellar.

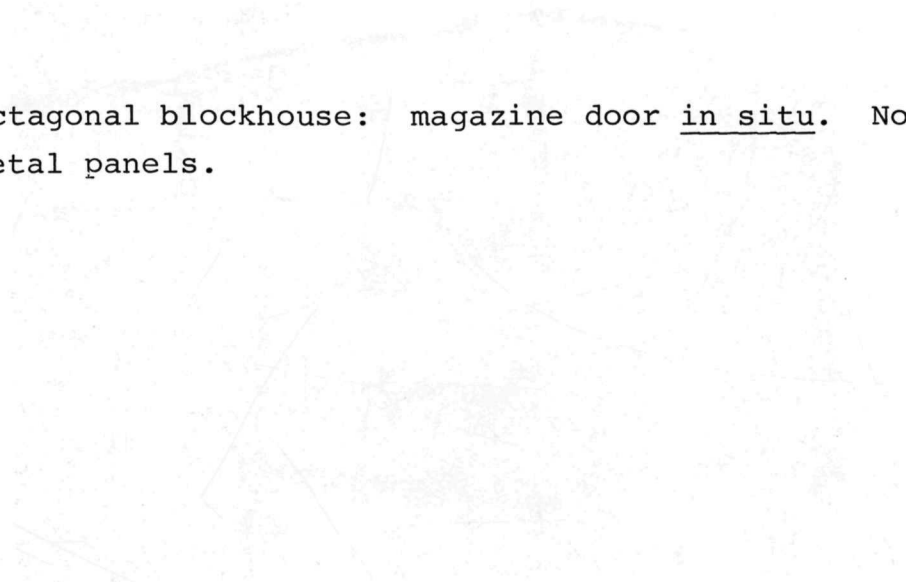


136 The octagonal blockhouse: central bearing wall showing doorway and drain.

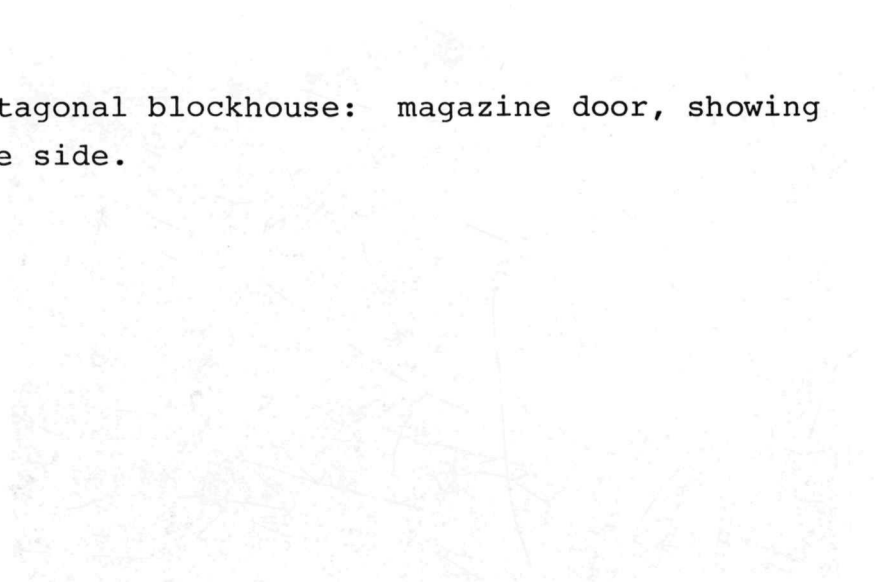
137 The octagonal blockhouse: central bearing wall to east of hearth base.

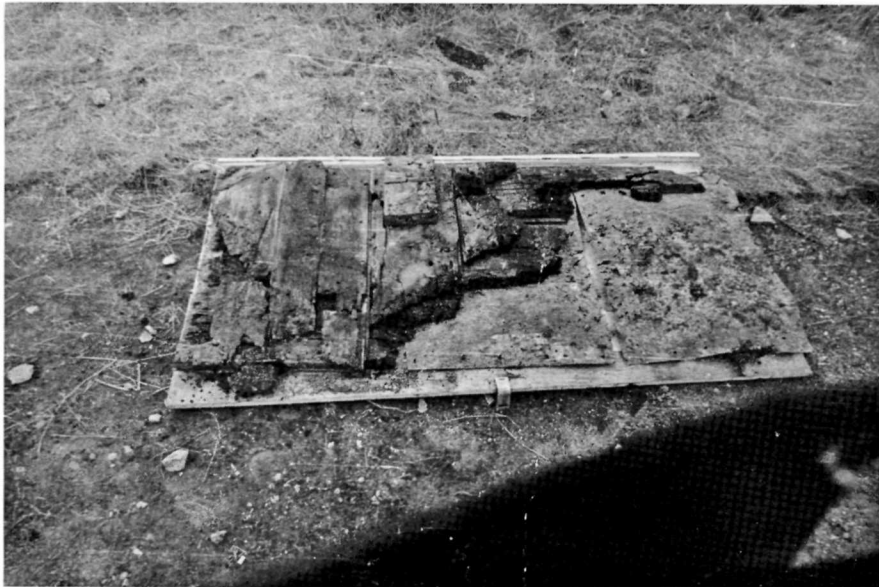


138 The octagonal blockhouse: magazine door in situ. Note the metal panels.

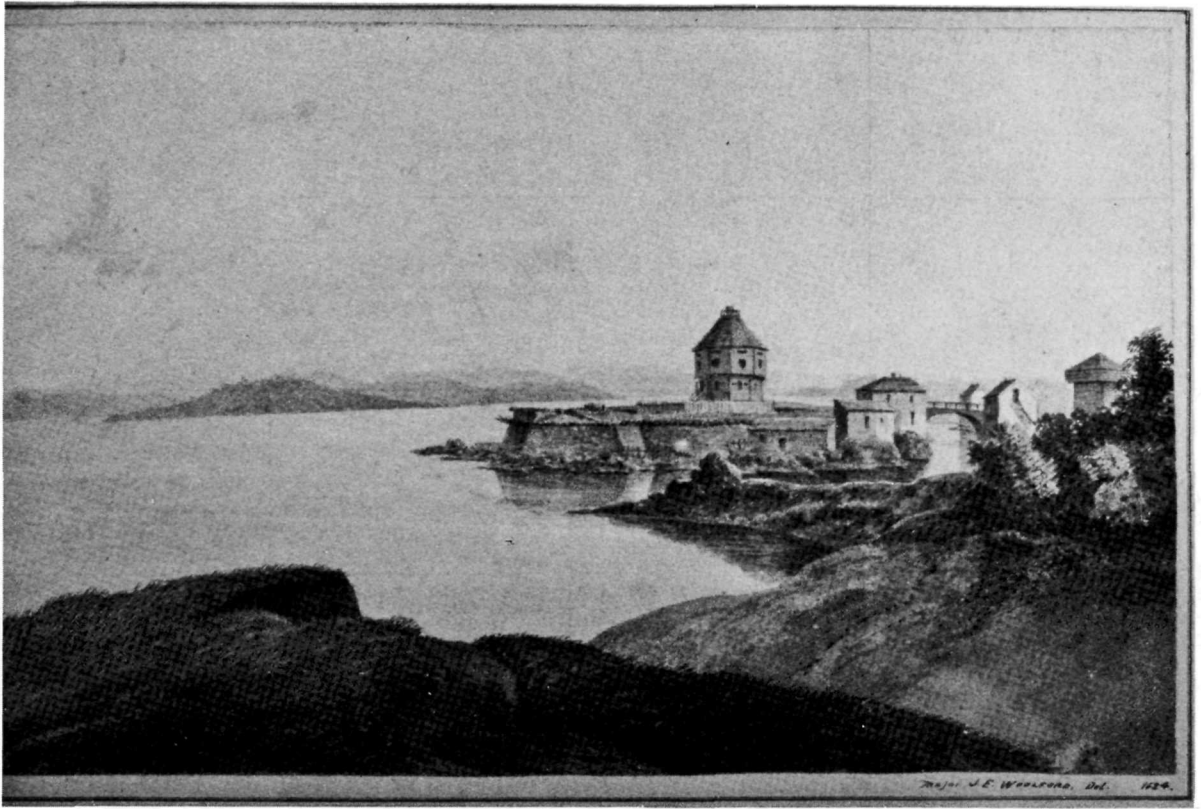


139 The octagonal blockhouse: magazine door, showing reverse side.





140 "Fort of Coteau on the St. Lawrence River," by Major
J.E. Woolford, 1824. (Metropolitan Toronto Public
Library.)



Desig. J.E. Woolford, Del. 1829.

