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Saint John's Red Head Battery: A Forgotten Military Artifact of Confederation

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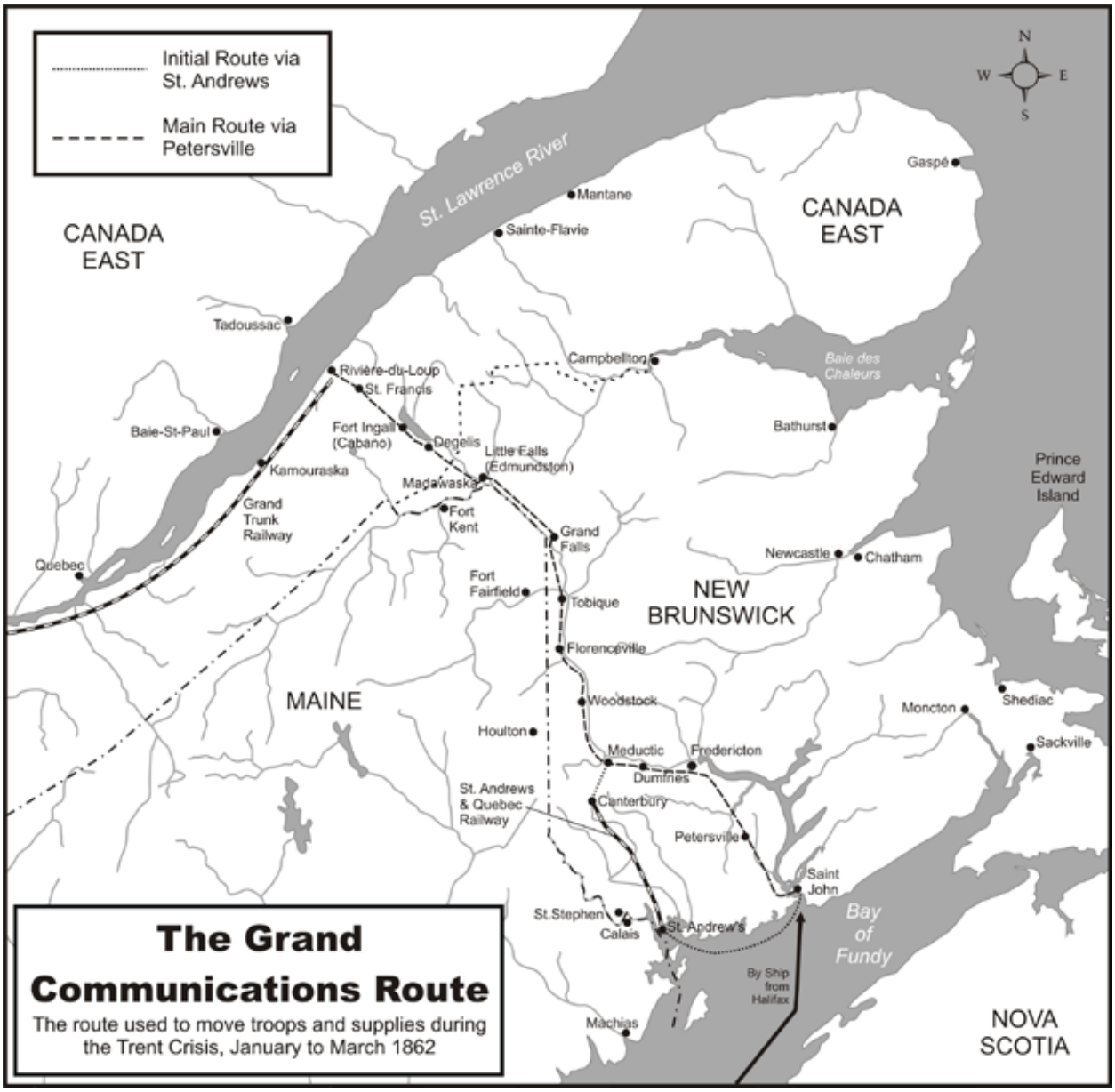
Roger Sarty, Marc Milner and Doug Knight

In the early 1860s, driven by the threat of war with the United States, British army engineers and local contractors built a coast artillery battery on top of the red-coloured bluffs overlooking the eastern approach to Saint John harbour. It is broadly similar to earlier coastal batteries that still exist at Halifax and Quebec City, but on a more massive scale because artillery was rapidly increasing in size and power during the 1860s. Other heavy batteries were constructed at other Canadian ports during that decade, but all were subsequently rebuilt with more modern structures. Red Head Battery is the only surviving example in the country.[1] It was also the last major defensive work built to guard the strategic overland road from Saint John to the Canadian interior, which was the only means of access from the Atlantic to the interior in winter.

The battery recalls the danger of American invasion of Britain's North American colonies that resulted from confrontations between Britain and the United States during the American Civil War. That menace provided a key impetus for Canadian Confederation in 1867, and Red Head Battery provides the closest association of any site or building to the important military origins of Confederation. Astonishingly, Red Head Battery remains largely intact today, and except for the ravages of weather and time, it has not changed since the last workmen left in 1866. Until recently, the site had been forgotten by everyone except the local residents. It deserves to be better known.

Red Head Battery was constructed in direct response to the *Trent* affair of 1861. This was the incident that brought Britain and the United States closest to armed conflict during the Civil War. On 8 November 1861, the US cruiser *San Jacinto* seized two Confederate diplomats from the British steamer *Trent* in international waters. The American government did not rush to release the prisoners, and the British immediately dispatched the first of more than 11,000 troops to reinforce their North American colonies. War seemed imminent. The greatest danger was to the province of Canada, the southern part of present-day Ontario and Quebec, which was a long way from the centres of British sea power at Halifax, Nova Scotia, and Bermuda. However, it could be easily reached by the huge armies that the US federal government had mobilized. The situation was all the more difficult for Britain and her colonies because the *Trent* incident happened at the very end of the navigation season on the St. Lawrence River. Only the first steamships speeding the troops from Britain were able to reach Quebec in December before ice made the passage impossible. With the river closed, the British were forced to use the traditional winter land route to Canada through New Brunswick.[2]

This connection to Quebec had been significant to the French before 1763, and it remained critically important to the British, particularly after the secession of the American colonies from the Empire in 1783. During the War of 1812, thousands of troops had moved up the Saint John and Madawaska rivers, across Lake Temiscouata, and down the portage to Rivière du Loup. After the war, the British fortified and secured the route, although the so-called Aroostook War of 1839 brought the US and



Britain to the brink of war over British operation of the route through "disputed" territory. Without it, there was no effective way to communicate with the isolated frontier settlements of Canada from November to May. In 1861 the *Trent* affair again highlighted the importance of the route. Hasty preparations were made for steamships to discharge troops at Saint John, New Brunswick. From there they travelled by sleigh up the Saint John River valley and on to Rivière du Loup, which was the eastern terminus of the Grand Trunk Railway. More than 6,800 troops made this 309-mile trek between early January and mid-March 1862.

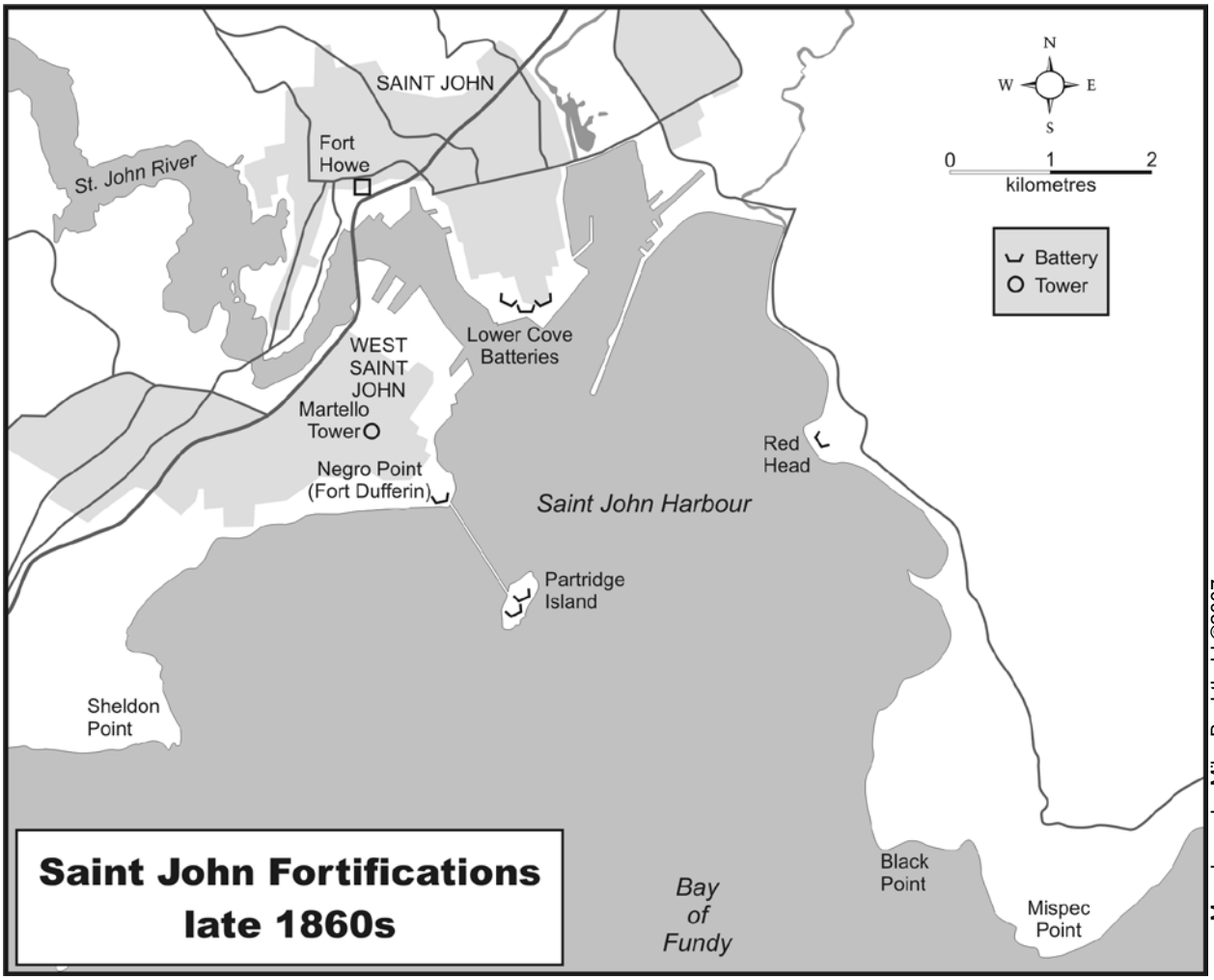
The immediate danger of war had passed as early as 26 December 1861, when the US government finally released the Confederate diplomats. None of the fundamental difficulties created by Britain's neutrality in the Civil War had been resolved, however. The first priority of the British commanders was to defend the sea around the Maritime colonies, and control enemy movements in adjacent waters. This was the role of the Royal Navy, but it could not do this and also guard the harbours. These had to be defended by coastal batteries.

As troops began to move through Saint John in January 1862, Lieutenant-Colonel S. Westmacott, commanding the Royal Engineers at Halifax, and Colonel A. Bern of the Royal Artillery, inspected Saint John's defences and recommended significant improvements. The permanent British garrison consisted of a few hundred gunners and infantry, manning an

outdated and inadequate system of coastal batteries. Originally built during the French Revolutionary and Napoleonic Wars, these were located at Lower Cove and on Partridge Island. The Lower Cove guns, at the southern end of the city, were located too far into the harbour to be much use. Partridge Island was an exposed position, about a mile and a half to seaward, that was well positioned to guard the shipping channel. The barren, rocky terrain of the island, and the low embankments of the existing battery, however, offered little protection against modern long-range artillery firing explosive shells. Westmacott and Bern concluded that, "St. John and its Harbour may be practically considered as defenceless."[3]

The British were not interested in developing Saint John as a major base: the imperial dockyard and fortress at Halifax served that purpose. Nevertheless, Saint John was the seacoast terminus of the Grand Communications Route with the interior. The port had to be well defended or the province of Canada could be cut off during the winter months. Also, if an enemy could seize Saint John, it could be used as a base for an overland thrust against Canada, or for operations in the Bay of Fundy to cut off Halifax from the rear.

The ideal fortress would protect Saint John from enemy ships and landing forces from Mispec Point on the east, to Sheldon Point on the west, which are about 6,000 yards (5500 metres) apart. In 1862, this was well beyond the 2,000-yard (1800 metre) effective range of the contemporary artillery. Bern and Westmacott therefore recommended that new batteries should be constructed at Red Head on the east, and Negro Point on the west, where the approaches narrowed to 3,000 yards, "a good front of defence within practicable [artillery] range." At each position there should be "a substantial properly-covered earthwork battery for ten heavy guns – namely – three 100 pr [pounder - the gun fired a 100-pound (45-kilogram) projectile] Armstrong



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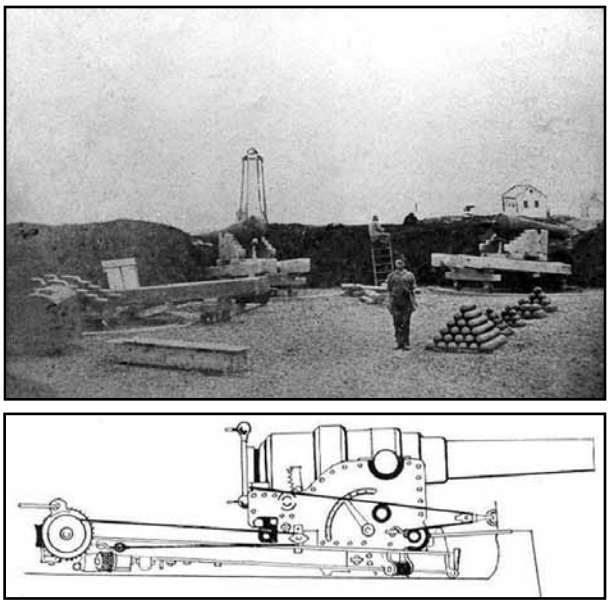


Top: Partridge Island battery in the 1860s, showing the low, thin earth banks that gave insufficient protection against new explosive shells, and the outdated cast-iron, solid-ball-firing smooth-bore guns that armed the Saint John defences. (Hargrove Collection, Partridge Island Research Project, kindly supplied by Harold Wright).

Above: The large Armstrong 100-pounder rifled breech loading gun, "built-up" from tough wrought iron tubes, which fired 45 kg conical explosive shells. This revolutionary new weapon had just entered service in 1861, and the British Army was prepared rapidly to install several at Red Head if war broke out with the United States.

guns, and seven 68 prs of 95 cwt [the gun weighed 95 hundredweights - 10,640 lbs (4,836 kg), and fired a 68-lb (31-kg) projectile] with Expense Magazines, Small Stores and a defensible barrack for 50 men with enclosure against a sudden attack or coup de main." Batteries at the Red Head and Negro Point positions could also cooperate effectively with Partridge Island. Because the island was very exposed, Bern and Westmacott recommended that the existing weak earthwork should be replaced by "a strong self defensible casemated work for two to 300 men…with a powerful armament of at least 30 heavy guns…"

At the height of the *Trent* crisis in December 1861, the British commander at Halifax authorized the Saint John garrison to stockpile timber and sandbags. These would be used to construct temporary batteries at Red Head and Negro Point (soon to be called Fort Dufferin) if war broke out. Meanwhile, the British government rushed ten of the latest artillery pieces, 100-pounder Armstrong guns, to Halifax. These were earmarked for Red Head, Negro Point and Partridge Island in the event of hostilities.

The Armstrong guns, later known as 7-inch rifled breech loaders, were a radical departure from the cast-iron, muzzle-loading, smooth-bore, spherical-shot-firing guns that had been standard for centuries. These massive new guns were constructed from wrought-iron tubes, that were shrunk around the basic barrel to give it greater strength. Wrought iron was stronger than cast-iron. The interior of the bore was cut with rifling (spiral grooves) that gave a spin to the cylindrical projectile on firing. The spinning stabilized the shell in flight, improving range and accuracy. The breech was sealed by a heavy wrought iron block that fitted into a slot in the rear part of the barrel, and was locked in place by a large screw mechanism. Experience quickly demonstrated that the breech mechanism was too heavy and complex, and the British soon reverted to muzzle-loading, built-up wrought-iron rifled guns. The Armstrong guns were therefore available for use in the colonies.

These new designs and other major developments in artillery were soon tested in the American Civil War. They were part of the many changes in military technology that included the emergence of ironclad steam-powered warships. In 1859, France produced *La Gloire*, whose traditional wooden hull was covered with iron plates. The British instantly responded by launching the much larger HMS *Warrior* in 1860, which was entirely built of iron. The first clash of ironclad ships occurred just two years later at Hampton Roads, Virginia. There, the CSS *Virginia*, little more than a wooden steam-driven battery protected by iron plates, engaged the USS *Monitor*, a low-hulled iron warship mounting two muzzle-loading guns in a revolving turret. The battle between these ships was inconclusive, but the damage inflicted by the *Virginia* on the Union fleet before she was engaged by the *Monitor* demonstrated the vulnerability of wooden warships to these new weapons.[4]

The design of the batteries at Red Head and Negro Point reflected this changing technology. A large number of guns were needed at each position, in order to provide the high volume of fire necessary to engage a steam-powered vessel,

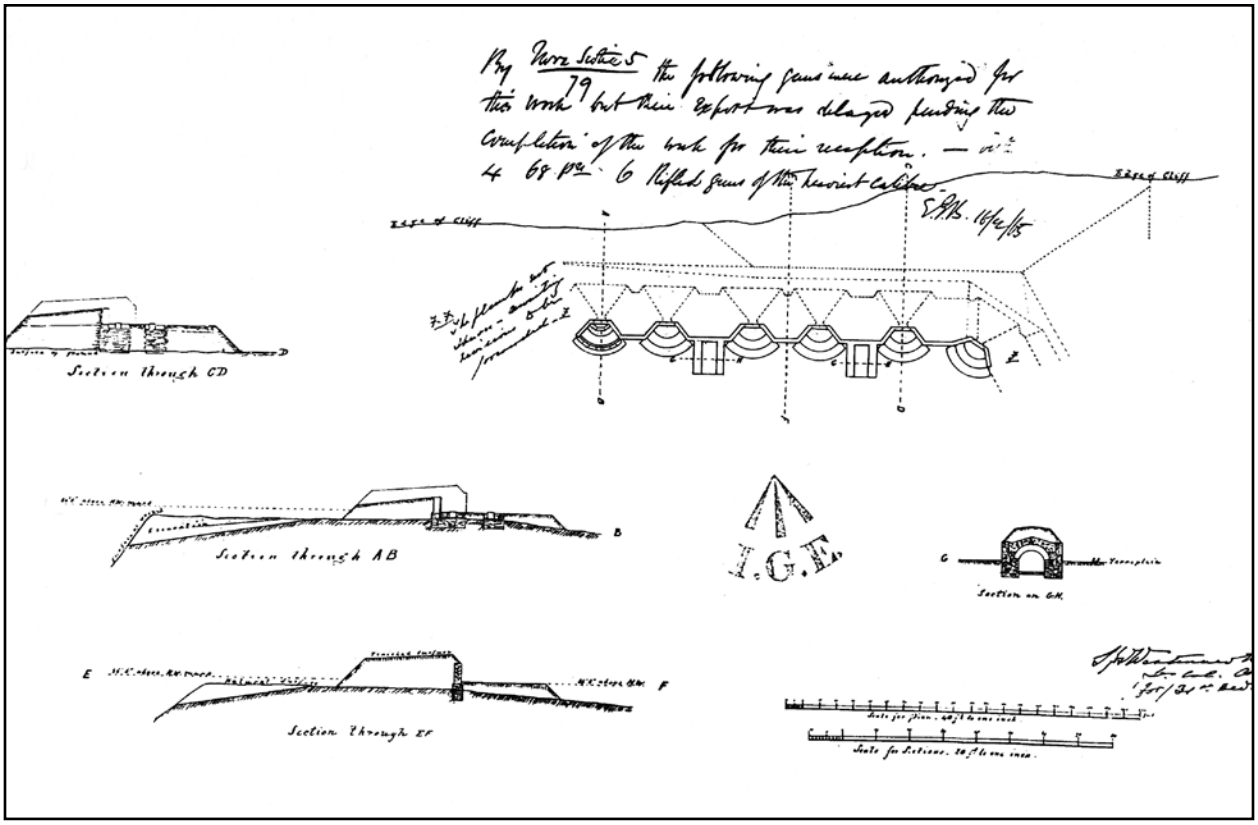
which was not dependent on the wind and could manoeuver at will. The large guns on the ship, moreover, could deliver a heavy weight of high explosive shells, which demanded a high level of protection at the battery. Therefore, although the general design of the new Saint John batteries was similar to earlier works, the structures were more massive and designed to absorb much heavier punishment. The parapets, for example, at the Lower Cove, were only eight feet (2.4 metres) thick, and the guns were mounted to fire over the top. The parapets of the new batteries would be thirty feet (9 metres) thick, rising eight feet (2.4 metres) above the floor of the gun positions. As a result, the guns were fired through embrasures cut in the parapet, the faces of which were reinforced with local stone and capped with brick. This design presented only a small opening to seaward, covering the crews during loading and firing. Between each pair of guns would be a heavily-built masonry "expense" magazine for ammunition. This would be covered with five feet (1.5 metres) of earth. These magazines also created a protective wall, or "traverse," perpendicular to the parapet, to protect gun crews against fire from a ship positioned to fire shells up the length of the battery.

The British Army's Royal Engineers had great experience in constructing the empire's fortifications, and this was a standard design. The *Trent* crisis was only one of a number of incidents that highlighted the need to improve coastal defences in Britain, Canada, the West Indies, and elsewhere. Since the early 1840s, a series of panics had resulted from fears that hostile powers could use new technology, particularly fast, steam-powered warships, to evade the Royal Navy and attack the empire's ports. Steamships meant that the bombardment of coastal towns, the landing of troops for raids, or even a full scale invasion, could not be anticipated by the state of wind, weather, or tide. Permanent shore defences were now more important than ever. However, it was physically – and financially – impossible to fortify every port that might become a target. Therefore, Westmacott and Bern's detailed strategic assessment was critically important. It allowed the British commanders to decide if Saint John needed improved defences, and how much of their limited budget should be allocated for this task.

Unlike Halifax, Quebec, or Bermuda, Saint John was not a major base for British naval or land forces. That placed the city in a category similar to commercial ports in Great Britain, for whose defence the British government insisted on municipal assistance. Their logic was that the defences helped to secure the local

The two central gun positions, looking north towards Courtenay Bay and the eastern suburbs of Saint John, showing a side view of the northern expense magazine. The earth covering of the magazine had two purposes, to protect the magazine, and also to create a traverse to prevent shells fired from a ship bearing out to sea to the south from "raking" the whole length of the battery. The figures in the foreground are Marc Milner (left) and Lee Windsor (right).

Photo by Lee Ellen Pottie

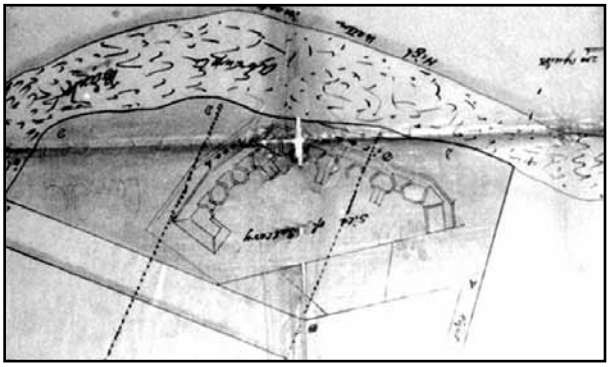


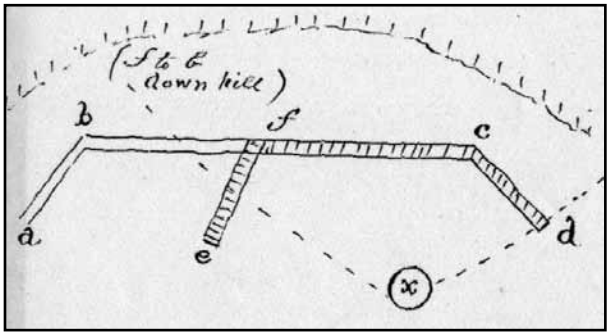
Progress drawing of the Red Head battery, signed by Lieutenant-Colonel S. Westmacott, Commanding Royal Engineers at Halifax, dated 31 December 1863, and showing that no work had been undertaken on the four gun emplacements planned for the left (southern) flank pending decisions resulting from the discovery the ground dropped away and made for an exposed position.

economy, so commercial interests should help to pay for the protection. This model was doubly applicable to Saint John. Since the 1840s, the British government had been pressing the self-governing colonies in North America to assume a much larger share of the responsibilities and costs of their own defence. Thus, as soon as Westmacott and Bern completed their survey, General Hastings Doyle, the commander-in-chief at Halifax, asked the New Brunswick government to provide, free of charge, land for the proposed new batteries at Red Head and Negro Point. The New Brunswick government did so.[5]

Detailed records for the construction of Red Head and Negro Point batteries have not been found. However, they are available for a nearly identical project, the construction of Chapel Point Battery at Sydney Mines, Nova Scotia. These show that the Royal Engineers engaged and closely supervised local contractors, and that the progress of work was dictated by the money available in the annual budget of the British command at Halifax. Those funds, allocated by the British government on the basis of compromises among the large demands from the whole empire, were never adequate. The detailed correspondence for Chapel Point Battery, concerning what work could or could not be funded in a particular working season, would make depressingly familiar reading for any present-day government official or corporate executive. It says much for the impact of the *Trent* crisis, and the important role played by Saint John in the winter reinforcement of Canada, that even the basic structures of the Red Head and Negro Point batteries were built.[6]

It was planned to mount ten heavy guns in a dog-leg shaped position at Red Head, in groups of two with expense magazines between each group. Six would face east towards Partridge Island. At the southern end of the battery, the other four guns would angle slightly inland to engage ships approaching the harbour from the southeast. Clearing the heavy underbrush at the site, an undertaking repeated by the Canadian 4 Engineer Support Regiment in April 2005 using gasoline-powered chain saws and wood chippers, however, revealed a major problem. The land at the southern end of the site, where the four most seaward guns were to be installed,





Left: The original plan for the 10-gun battery at Red Head. ("Red Head St. John NB Shewing revised site for New Battery...To accompany C.R.E's memo...3rd Dec 63," courtesy of Harold Wright)

Right: A Canadian government clerk's copy of the sketch Colonel W.F.D. Jervois made of Red Head battery during his inspection tour of 1863. Jervois's report resulted in the cancellation of the four gun positions (labelled here as a,b,f,e) planned for the southern, seaward part of the battery. These positions, he argued, would be exposed to enemy fire because of the downward slope of the ground. He also recommended the construction of a masonry, loop-holed "keep" at "x" on the plan, and the construction of walls and ditches, shown by the dashed lines, to protect the battery from raiding parties of infantry. "Defences of New Brunswick (St. John)," Stewart Collection, Canadian War Museum.

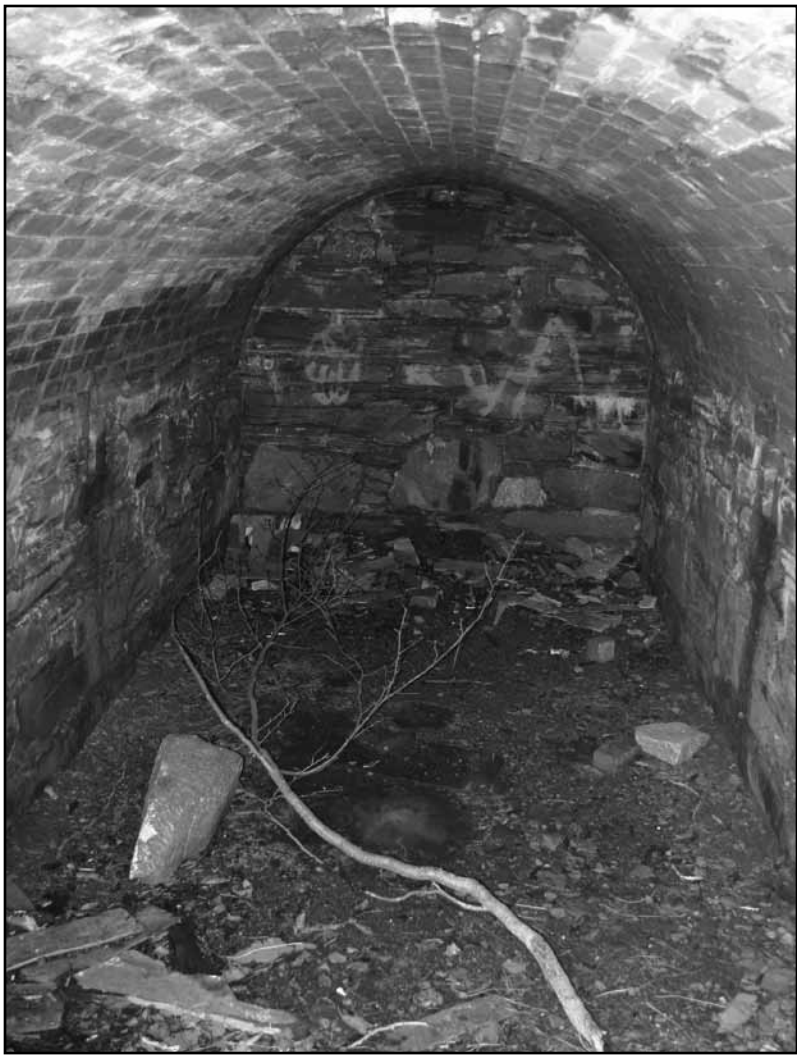
sloped sharply downwards. In the summer of 1863, Colonel W.F.D. Jervois, Deputy Inspector General of Fortifications in London, visited Red Head as part of an inspection tour of British North America, and his report was very critical of the site:

> The work here will be isolated and unsupported, and should certainly be capable of self-defence, but this does not appear to have been borne in mind in the preparation of the plan now in progress. The five left guns of the ten proposed to be mounted are placed on the slope of a hill in such a manner that they would be liable to be seen into from the high ground to the S.E. of the battery, and even from the ground near the beach about Cranberry Pt. I am not sure indeed that they could not be enfiladed from the beach [below the battery] itself. These guns on the slope of the hill should I think be omitted – and the left [south] flank of the battery should be close to the summit of Red Head. This alteration will reduce the number of guns to five or six, instead of ten as originally proposed, and in my opinion six guns will be quite sufficient for this site, the intention of placing guns thereon being solely to prevent an enemy's ships hugging the Eastern shore at high tide and so escaping the fire of the guns on Partridge Island....[7]

Colonel Westmacott at Halifax did not appreciate this intervention from head office. He blamed the local supervisor for poor implementation of the original plan. He also observed that Jervois attached undue importance to the danger from landing parties, because the battery's main purpose was to engage enemy warships.

> ...that a sea Battery should be commanded or seen into by ground adjacent or in its rear is very general and in most cases unavoidable by [as?] ground naturally falls towards the sea and Batteries are placed as much in advance as possible – the first object is to get the best seaward range and so long as the work is not seen into or enfiladed from sea the land question is of little importance. In this case Cranberry Pt. is 2000 yards distant [ie., at the very extreme limits of small arms fire that would be the main danger from a landing party] – but if the left of the Battery is on the slope of the hill "dipping rapidly towards the beach" it is evident that the Executive Officer in charge has made an alteration and a blunder since I first laid out the work (N.B. The Bush then covered the site now cleared) and I quite concur in the propriety of stopping that side of the Battery for the present....
>
> Though I concur in the proposal to omit for the present the four left guns for the reason given, I should regret to see the original number of ten [reduced]...the space to be covered is very extensive and hence requires a larger Armament than a more restricted channel.
>
> I have replied to these remarks more fully than I intended but it appeared desirable to explain that the whole subject had already been very carefully considered before advocating or adopting any measures of defence. [8]

Subsequent correspondence on the redesign of the southern part of the battery has not been found, but the results, carried out during the 1864 and 1865 construction seasons, are abundantly clear at the site. Despite Westmacott's appeal to rework the fortification so that the full planned armament of ten guns could be accommodated, only the six positions which had been started in 1862-3 were completed. The solution to the problem posed by the



Above: The entrance to the southern expense magazine. Note the heavy earth cover over top of the magazine.

Right: The interior of one of the expense magazines, showing the excellent condition of the masonry. The brick vault still looks as if it was only recently constructed.

sloping ground was dictated by economy. As a group of University of New Brunswick students discovered, while struggling through the dense woods in a tour led by the authors in 2001, the southern flank of the battery has been closed by a towering earth mound or "traverse". This screens the site from both the beach below and the high ground adjacent to the harbour approaches, and was the cheapest way to provide the most basic protection. Jervois, while arguing that six guns were sufficient, had actually recommended measures that were much more elaborate – and expensive – to guard against landing parties:

> This may be effected by constructing a tower (with a magazine under it) at the gorge [ie in the open area behind the gun positions], and cutting ditches running out to the cliff. These ditches to have in them a wall or high stockade as an obstacle, and to be flanked from the "keep" [the tower]. If necessary, the obstacle [ie, wall or stockade] might also be continued along the face of the battery, or on the slope of the cliff.[9]

In the event, no permanent defensive positions guarding the rear of the battery were ever constructed. The completed work contained six gun positions. Five of these aim directly towards Partridge island, effectively sealing the eastern channel into the harbour. The sixth at the north end, is oriented to fire into the inner harbour. All the construction materials appear to be local. The foundation of the gun positions was field stone, and the general shape of the battery was contoured with glacial till quarried just to the north of the site. The red slate stone used to face the gun positions is, according to locals, from a quarry about a kilometre inland. The red brick used to build the magazines, and the granite gun races and facings on the magazines, were also probably of local origin.

Jervois' inspection tour in 1863, and another in 1865, assessed the number and type of modern fortifications that were necessary to defend British North America against the United States. Considering what the Civil War had revealed about American military strength, Jervois' call for more extensive works at Red Head was typical of his reports on the vulnerable points on the Canadian frontier and in the Maritime Provinces. Even the formidable citadels at Halifax and Quebec City, built in the 1820s-40s, would be of limited use when faced by armoured steam warships, modern artillery, and the large infantry and cavalry forces of the Americans. All existing fortifications had to be supplemented or replaced

Photo by Lee Ellen Pottie

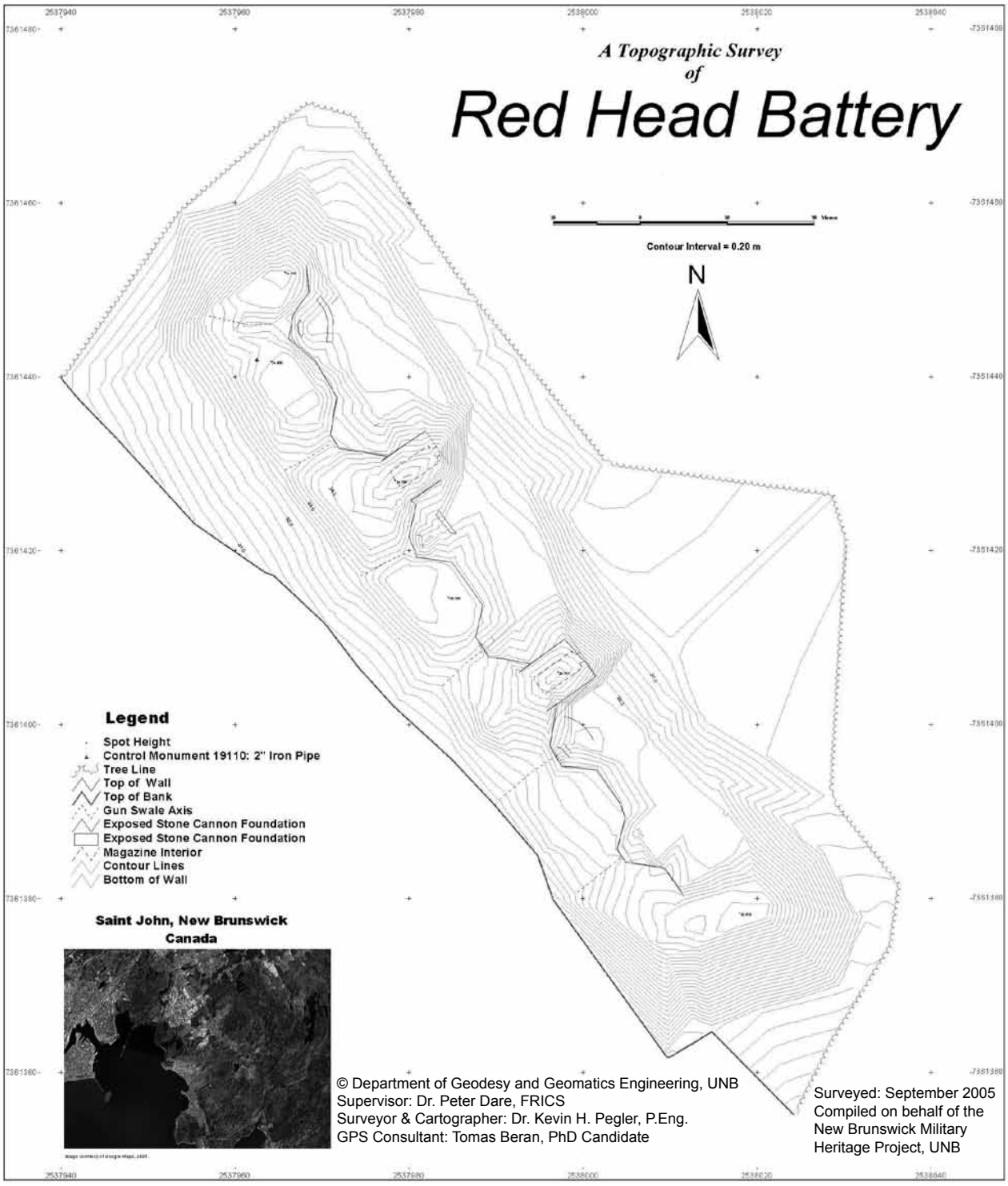
by more heavily built works, and armed with expensive rifled guns. Otherwise, the few tens of thousands of British regular soldiers, and the more numerous (but largely untrained or only partially trained) colonial militia, would stand no chance.

British Army estimates of the cost of modern fortifications for Toronto, Kingston, Montreal, Quebec City, and Saint John were in the order of £1.6 million. This was an enormous price, the equivalent of a multi-billion dollar undertaking today. Saint John's share was large, as much as £200,000.[10] A small part of that sum would provide the tower, walls, and ditches that Jervois recommended for Red Head. The bulk would be needed for a substantial fort on Partridge Island, virtually a land battleship, with guns installed in earth-covered masonry rooms to protect the exposed and isolated site.

The heavy financial burden of defending British North America against the United States played a large part in bringing the British government strongly to support the scheme for the confederation of the colonies promoted by the government of the province of Canada. United, the colonies could better muster resources for defence. Also, a new nation that was nominally independent from Britain, and less dependent on British armed forces, would be less likely to arouse the animosity of anti-British elements in the United States. In New Brunswick, however, such large strategic issues were submerged in local concerns. In early 1865, the colony elected an anti-confederation government, but the defence issue descended the province in the spring of 1866. Then, the Fenians, Irish-American nationalists who were bent on the conquest of British North America, gathered for a much-publicized convention at Eastport, Maine near the international border. New Brunswick mobilized its partially organized militia, including volunteers who assisted the small British garrison at Saint John in guarding the port.

Detail of one side of a gun emplacement showing the cut stone revetting that strengthened the heavy earth bank. On the right is one side of the embrasure through which the gun would have fired. Here the stone reinforcement was particularly important to prevent erosion of the earth bank by the blast from the gun's fire. Partridge Island is on the upper left, linked by the breakwater to Dufferin Point, just visible on the right. Red Head's armament was to cooperate with fire from guns at these two positions to cover the whole of the main entrance to Saint John harbour.

Photo by Lee Ellen Pottie


A Topographic Survey
of
Red Head Battery
Contour Interval = 0.20 m
N
Legend
Spot Height
Control Monument 19110: 2" Iron Pipe
Tree Line
Top of Wall
Top of Bank
Gun Swale Axis
Exposed Stone Cannon Foundation
Exposed Stone Cannon Foundation
Magazine Interior
Contour Lines
Bottom of Wall
Saint John, New Brunswick
Canada
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Compiled on behalf of the
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Above left: A view of a full gun emplacement, with the embrasure through which the gun fired at the centre. Partridge Island is visible above the left hand side of the embrasure. **Above right**: The southern, seaward part of the battery, with Mispec Point in the distance. This view shows how the ground of the site drops off sharply to the south. This was the difficulty that led the Royal Engineers to cancel construction of the four southernmost gun positions planned, and erect the large protective earth traverse clearly visible in the middle ground.

By early 1866, Red Head Battery was "three-quarters" complete. This meant everything had been finished except for the hardware necessary to mount the guns. The battery would have looked much as it does today, apart from the effects of time in displacing some of the masonry, and the erosion of the earth covering the parapets and magazines. The most challenging task had been the installation of the semi-circular racers in each of the six gun positions. These were heavy, precisely-cut, granite blocks, set on deep foundation stones, that provided a stable, perfectly level surface on which the wheels of the gun platforms traversed.[11] With this completed, Red Head stood ready to receive its guns – should the need arise.

No additional work appears to have been carried out during the Fenian crisis of early 1866. The Fenians had no large ships, and could threaten only small-scale raids on the port facilities. British warships from Halifax quickly arrived in the Bay of Fundy, carrying a full battalion of infantry and two batteries of field artillery. This, and the somewhat belated action by American authorities in Maine to seize Fenian arms caches and arrest leaders, ended the main danger in the latter part of April 1866. One of the results of the crisis was that the British governor, Arthur Gordon, dismissed the anti-confederation government, and called on pro-confederation leaders to form a new administration. This was a key step in achieving British British North American confederation, and the creation of the new Dominion of Canada on 1 July 1867. The "staggering" cost of the mobilization of the militia in New Brunswick to meet the crisis, $111,853.28, helped overcome opposition to confederation.[12] Defence would henceforth be the responsibility of the new federal government.

As part of the preparations for confederation, the province of Canada had discussed defence requirements with the British government. Britain made it clear that she would soon be greatly reducing the number of troops deployed to protect the Canadian frontier. Canada, therefore, agreed to implement most of Jervois' fortification scheme. Britain, as its part of the bargain, spent some £200,000 from 1866 to 1872 in constructing three massive forts on the south shore of the St. Lawrence River to protect Quebec City. The city was the key to the defence of the entire Canadian interior against American attack. Britain also spent £180,000 on an entirely new set of coastal defence batteries at Halifax. This was not completely unselfish. Armed with heavy rifled guns, the forts secured the Royal Navy base against a strike by American warships.

The new Canadian federal government agreed to build the fortifications at the other points, including Saint John, and in 1869 secured a guarantee from the British government for a loan of £1.1 million to fund the massive projects. That same year, as part of the reduction of the

Photo courtesy of Harold Wright.

A snapshot taken during the early part of the Second World War that shows one of the 32-pounder smooth-bore cannon installed at Red Head in 1878, in response to a war scare with Russia. The guns were removed soon after this photograph was taken in a scrap metal drive to provide raw materials for modern munitions.

British troops that had guarded Canada during the American Civil War, the small British garrison left Saint John. All the land and forts were turned over to the new federal government. Tensions with the United States were greatly reduced by the Treaty of Washington in 1871, and in any case, the United States had demobilized the forces created during the Civil War. At the end of the year, the last British troops on the Canada-US frontier left for home. Only 2,000 British troops remained at Halifax to secure the imperial fortress and dockyard.

By then, the Americans were focussing their energies on reconstructing the South, and building transcontinental railways for development of the West. Canadian leaders also wanted to build a railway from Ontario to British Columbia. This was necessary to secure the western territories recently acquired from the Hudson's Bay Company against American encroachment. The government also had to meet its commitment for the rail link that had persuaded British Columbia to join Confederation. In 1873, the British government agreed that the fortification loan guarantee could be used to fund the Pacific railway, and the funds to complete Red Head battery and modernize the rest of the Saint John defences were no longer available. Construction of the railways ended the need for the Saint John River route to Canada, so today, Red Head stands as the last monument to the importance of that communications link.

In the first decades of Confederation, Saint John was Canada's busiest ice-free major port. The commercial importance of the city meant that the new Dominion government could not completely neglect its defence. In 1872, the Canadian government engaged a senior British officer, Lieutenant-General Sir Edward Selby Smyth as "General Officer Commanding the Militia" to help organize and administer the Dominion's defences. One of his big problems was to modernize the coastal defences at a considerably lower cost than estimated by Jervois. Although war with the United States looked increasingly unlikely, other potentially hostile nations were building fleets of modern warships. These could cross the oceans to strike at Canada. Selby Smyth thought he had the answer by using converted guns named after the British inventor Sir Edward Palliser. He had developed a process for reaming out old cast-iron smooth-bore cannons and inserting a rifled sleeve of tough wrought iron. This enabled the old guns to fire modern projectiles, at a small fraction of the cost of new rifled guns. One of Selby Smyth's top priorities was to arm the Saint John defences, including Red Head, with Palliser's guns. However, after his first order arrived in 1875, the British War Office discouraged the project on the grounds that the converted guns were adequate only to supplement, not replace, modern artillery. Only five of the Palliser guns slated for Saint John were delivered, and Selby Smyth had these installed at Fort Dufferin (as Negro Point battery had been renamed in honour of Canada's new governor-general, the Earl of Dufferin.) Placing the guns at Fort Dufferin also allowed the militia to have easy access for training, and the site became an

important camp for artillery units in eastern Canada until the 1890s.

Selby Smyth was wise to worry about threats from powers other than the United States. During Britain's confrontation with Russia in 1877-8, there was good intelligence that Russian seamen and artillery had arrived at Ellsworth, Maine. In the event of war, they intended to charter fast steamships and prey on British shipping, probably in the Bay of Fundy. The British government warned Canada that it should not rely on British warships to protect the coast. The British fleet would be completely committed in countering Russia's main naval forces. In the spring of 1878, Selby Smyth did his best to improve the coastal defences with the few resources at hand. Red Head battery was finally armed with four 32-pounder smooth-bore cannon, which were the best guns immediately available from Canadian stocks, but severely outdated. In London, a special "colonial defence committee" was created to consider the empire's port defences in light of the Russian threat. They advised Canada to equip Red Head, Fort Dufferin, and Partridge Island with heavy rifled guns, but the estimated cost was so great that the Canadian government dismissed this advice out of hand[13]. The Russian crisis was resolved without war, and the 32-pounders remained at Red Head, rotting away on their wooden carriages, until they were removed for scrap during the Second World War.

As a result of major improvements in artillery technology, Red Head returned to the centre of Canadian defence planning in 1902-4. The development of long-barrelled guns with efficient breech-loading systems in the late nineteenth century once again transformed naval warfare, and consequently coastal defence. The new guns fired high explosive shells accurately and rapidly to ranges of 10,000 metres or more. The Canadian government procured some of these guns to protect the two major east coast ports, Saint John and Quebec City. The two heaviest guns were intended to be mounted in large steel-reinforced concrete pits at Red Head, and could cover all the approaches to the port. However, before this could take place, the British reduced their garrison at Halifax. This forced the Canadian government, in one of its

The two modern 7.5-inch breech-loading guns purchased by the Canadian government for Red Head in 1904. Because of changing defence priorities they were mounted at Martinière battery, shown here in 1936, on the south shore of the St. Lawrence River to protect the river approaches to Quebec City.

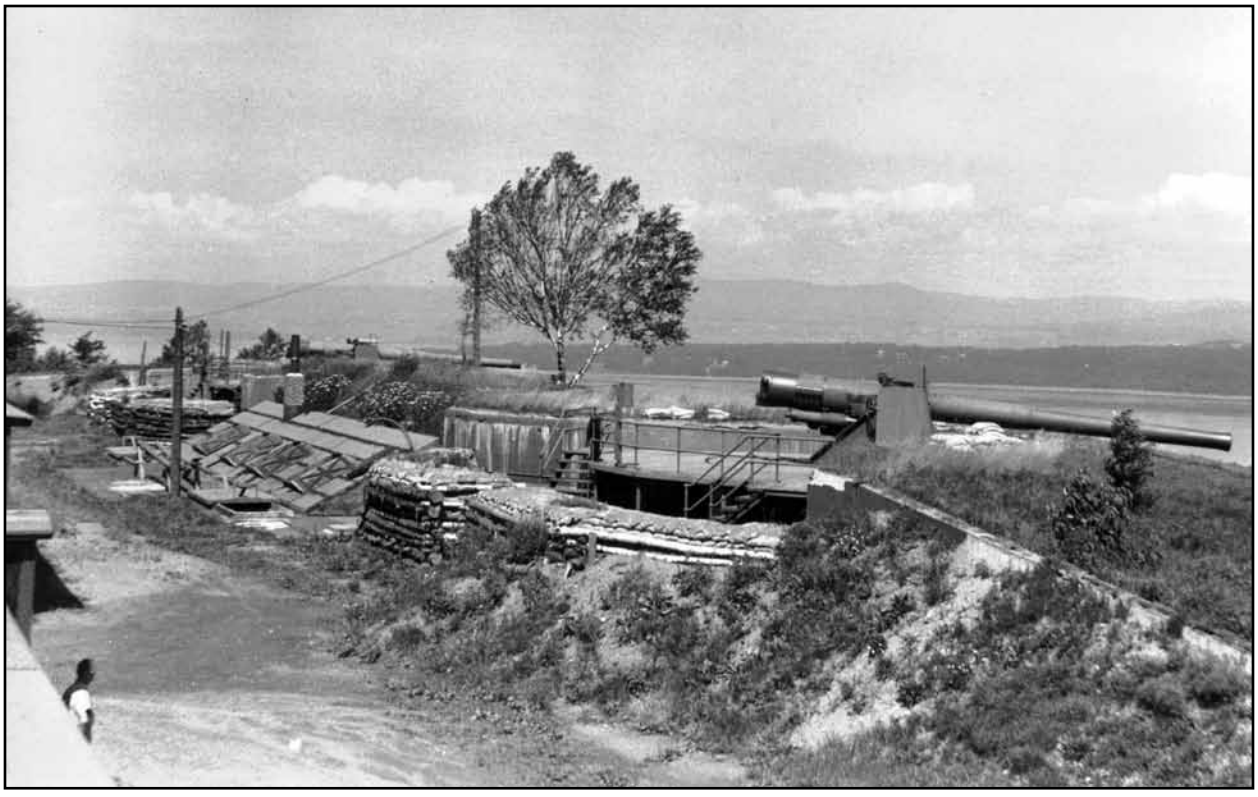

Photo courtesy of Directorate of History and Heritage.

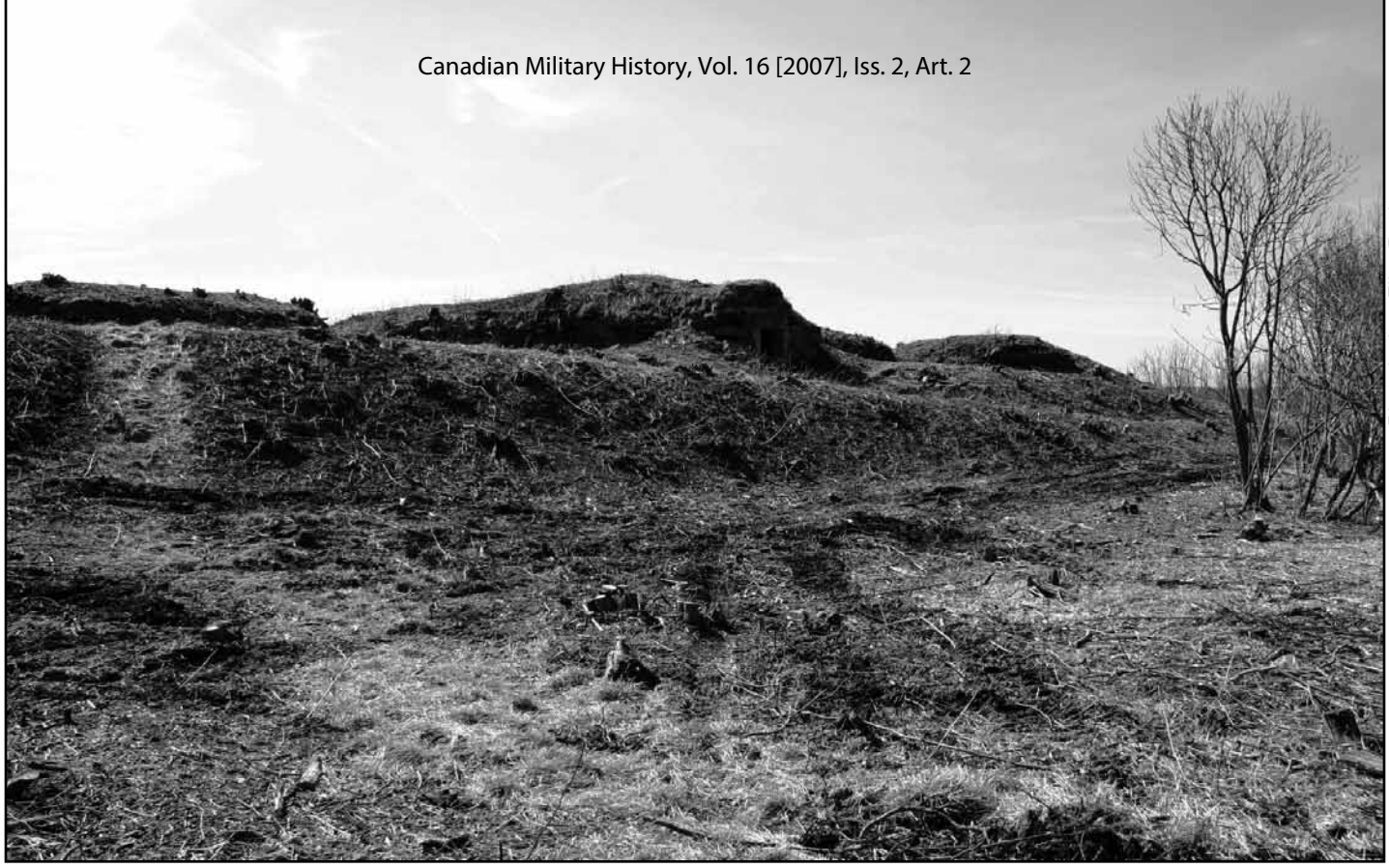

Photo by Lee Ellen Pottie

A view of the northern part of the battery from the rear (east). In the centre is the northern expense magazine, clearly showing how it was incorporated into a heavy earthern traverse.

rare major defence initiatives, to take over the imperial fortress and modernize its forts with long-barrelled breech-loaders. With Halifax connected to central Canada by rail, and its forts now a Dominion responsibility, Saint John slipped significantly in the priorities for national defence. The two big 7.5-inch guns ordered for Red Head were instead installed in a new concrete battery at Point Martinière, on the south shore of the St. Lawrence River below the port of Quebec. These guns were Quebec City's principal seaward defences throughout the First World War, and most of the Second World War.[14]

During the First World War, Saint John proved essential to the shipment of war supplies to Great Britain, but the need for coastal defences had diminished significantly. Coal-fired vessels lacked the range and endurance to roam freely, compared to the sailing vessels in the 1860s and 1870s that used steam only as an auxiliary power source. The main threat was an attack by Germany's long-range submarines, and against these, small-calibre quick-firing guns and searchlights on Partridge Island were sufficient.

However, during the 1930s, Germany constructed large oil-fired surface warships, in addition to re-establishing their U-boat fleet. This left no doubt about the need to provide more substantial defences at Canada's east coast ports. At the beginning of the Second World War, the Canadian Army developed a full set of coast artillery defences at Saint John. These, in essence, were based on the plans made in the 1860s-70s and early 1900s. But much had changed, and this time technology by-passed Red Head completely. The latest heavy guns had ranges of 20,000 metres and more. The major "counter-bombardment" battery was therefore installed at Mispec Point, on the outer limit of the harbour approaches. This was the site that the Royal Engineers had identified as the best position for advanced defences, should guns of sufficient range ever be developed. In the inner harbour, the construction of the Courtney Bay dry dock, and the large breakwater that protected it, had changed the defensive geography. A new inner defence battery to cover the eastern harbour was installed at the tip of the breakwater. However, Red Head was developed, along with Sheldon

Point, as a dummy gun position. Telephone poles were pushed through the parapets, and the site was covered with camouflage netting: the cables and ground pegs remain on site today.

Local memories of Red Head's military importance persisted. In 1942, when Canada was scrambling to complete its east coast defences in the face of a new transatlantic German submarine offensive, a reporter from the Saint John *Times-Globe* visited Red Head:

> A path, overgrown in summer with tall grasses, leads from each gun to the powder… magazines. Set into the side of the hill, the two stone store-houses are in almost as good condition as when they were built, nearly a century ago.
>
> Timothy and grasses, starred with daisies, grow about their open doorways, but the weather-worn stones are firmly cemented together still, and the vaulted brickwork inside is barely touched by time. Here and there, a white streak of mold or a flake off the face of a brick bears witness to the fact that the magazines have been standing since the American North and South struggled for supremacy.
>
> But the scenes suggestive of war are fled, and Red Head cows now peacefully graze upon the spot once echoed with Canada's former effort preparedness for a feared invasion.[15]

Little had changed in the intervening 59 years when the authors visited Red Head in 2001, except that the cows were long gone, explaining why the site had been completely overgrown.

The shock waves created by the American Civil War, which brought Saint John and Red Head into the strategic limelight in 1861-5, also helped to produce Canadian confederation. But nation-building quickly shunted Red Head into the shadows. The focus of the new dominion was transcontinental development, not maritime affairs, and certainly not coastal defence. The neglect caused by the shift in priorities, the advance of military technology, and the physical isolation of Red Head, sealed the battery in a sort of time capsule. By contrast, Fort Dufferin, on the foreshore of West Saint John, was an active military site through the Second World War, and modern structures disrupted the original emplacements. More recently, in the 1990s, the central part of the fort became a gravel pit, and excavations undermined the few remaining works from the 1860s. The other close sister of Red Head and Fort Dufferin, Chapel Point Battery near Sydney Mines, Nova Scotia, was abandoned in the late 1800s. In 1940, the last remnants of the battery were levelled to make way for a modern fort. Only Red Head remains.

Defence is not always about fighting. Often, it is more concerned with preparation and deterrence. In 1777, Agreen Crabtree, a particularly nasty privateer and pirate sailed into the unprotected Saint John harbour and plundered and vandalized the settlement. When he came back the following year, Fort Howe stood on the heights above the city, and Crabtree turned about and never returned. None of the fortifications at Saint John in the late nineteenth century could have withstood a major assault. But they were there, their presence deterred minor raids, and a major assault would have required considerable naval support, which would have drawn large forces from the Royal Navy. Red Head Battery and the other Saint John forts served their purpose well.

No one has ever removed anything substantial (except the granite gun races from one position) from Red Head. Even today, the suburban sprawl that blights the countryside around most cities has bypassed the old battery and the headland. The accidental preservation of the fortifications is remarkable, and the integrity of their historical setting on the wood-capped bluffs more remarkable still. Red Head remains virtually unchanged from its original form, and is unique in Canada for its architecture. It is the site most closely associated with the war scares with the United States that did so much to bring about Confederation, and it is the last guardian of the Grand Communications Route to Canada before the advent of the transcontinental railway.

Notes

The authors are grateful to Harold Wright who guided the first University of New Brunswick tour of the Saint John defences, shared his wealth of knowledge, and provided access to his superb collection of photographs and plans. Harold's book (with Byron E. O'Leary), *Fortress Saint John: An Illustrated Military History: 1640-1985* (Saint John: Partridge Island Research Project, 1985) is an indispensable source.

1. The only other fortification from the 1860s that survives intact is Fort Number 1 at Levis, south of Quebec City.

However, it was built between 1866 and 1872, and was designed for landward defense. The principal coastal batteries from the 1860s at Halifax are Fort Charlotte, on Georges Island, Cambridge Battery and Fort Ogilvie in Point Pleasant Park, and Ives Point Battery on MacNabs Island, but these also date from late in the decade, when technology had already changed, and the works at these sites were considerably altered in the 1890s-1900s.

2. Gary Campbell, *The Road to Canada: The Grand Communications Route from Saint John to Quebec* (Fredericton, NB: New Brunswick Military Heritage Project and Good Lane Editions, 2005).
3. Westmacott and Bern, "New Brunswick Defences. St. John," 17 January 1862, "Defences of New Brunswick (St. John)," Stewart Collection, CWM. On the history of Saint John's defences see Roger Sarty and Doug Knight, *Saint John Fortifications 1630-1956* (Fredericton: New Brunswick Military Heritage Project and Goose Lane Editions, 2003)
4. Roger Sarty, *Coast Artillery, 1815-1914* (Bloomfield, Ontario: Museum Restoration Service, 1988); Marc Milner, *Canada's First Naval Century* (Toronto: University of Toronto Press, 1999), 4-11
5. Doyle to Honourable Arthur Gordon, 3 December 1861, "Defences of New Brunswick (St. John)," Stewart Collection, CWM library. See Westmacott, "No 1421. Fortifications," 30 November 1864, "Defences of New Brunswick (St. John)," ibid: "The Province has since come forward in a liberal spirit – purchasing and surrendering to the War Department two sites required for Defences on…Negro Point…and on Red Head…"
6. Brian Tennyson and Roger Sarty, *Guardian of the Gulf: Sydney, Cape Breton and the Atlantic Wars* (Toronto: University of Toronto Press, 2000), chapter 3; Westmacott, "Revised Abstract of Services…Fortification Estimate 1865.6," 30 November 1864, "Defences of New Brunswick (St. John)," Stewart Collection, CWM library, refers to the principal work at Red Head being carried out by a "Contractor."
7. Jervois to Doyle, 23 September 1863, "Defences of New Brunswick (St. John)," Stewart Collection, CWM library.
8. Westmacott, 26 September 1863, reproduced in undated memorandum from Doyle, evidently to the Inspector General of Fortifications, reporting on issues arising from construction in the Halifax command during 1863, "Defences of New Brunswick (St. John)," Stewart Collection, CWM library.
9. Jervois to Doyle, 23 September 1863, "Defences of New Brunswick (St. John)," Stewart Collection, CWM library.
10. Kenneth Bourne, *Britain and the Balance of Power in North America 1815-1908* (Berkeley, CA: University of California Press, 1967), 260; "E.B.P.," "Memorandum respecting Fortifications in Canada, in connection with the recent Act passed by the Canadian Legislature for raising a Loan of L1,100,000 under Imperial Guarantee for certain Works of Fortification," 6 May 1869, and annexed documents, Directorate of History and Heritage
11. F.E. Cox, Major, RE, "Saint John, 17th Febr. 1866," quoted. See also A. Burnaby, Lt-Col, CRE to "The Major General," 3 January 1867, which states that the battery was completed except for armament, and Westmacott, "No. 1421 Fortifications," 30 November 1864, which refers to the stones for the racers having been delivered to the site and ready for installation. All in "Defences of New Brunswick (St. John)," Stewart Collection, CWM library.
12. For an excellent account of the Fenian threat to New Brunswick, see Robert L. Dallison, *Turning Back the Fenians: New Brunswick's Last Colonial Campaign*, (Fredericton: New Brunswick Military Heritage Project and Goose Lane Editions, 2006).
13. Canada, Parliament, Sessional Papers, *Report for the Department of Militia and Defence for…1878*, 62-4; Hicks Beach to Earl of Dufferin, 23 May 1878, enclosing Milne to Colonial Officer, "Report on Defences of the Principal Canadian Atlantic Ports," nd, Great Britain, National Archives, CAB 7/1, "Colonial Office Misc. 35 F…May 1878"
14. Roger Sarty, "Silent Sentry: A Military and Political History of Canadian Coast Defence, 1860-1945" (unpublished PhD thesis, University of Toronto, 1982), 203-6
15. "The Man on the Street," *Times-Globe* (Saint John), 28 January 1942, clipping kindly provided by Ms. Jan MacDonald.

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