



DISPATCHES

Issue 3

January 1999

FORTRESS EUROPE German Coastal Defences and the Canadian Role in Liberating the Channel Ports

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The Atlantic Wall

In the summer of 1940 Britain faced a hostile coast from the Arctic Circle to the Spanish border. It appeared inevitable that Germany would use its control of the French Channel ports of Boulogne, Calais, and Dunkirk to invade Britain. That autumn, however, the Royal Air Force defeated the German air force in the crucial battle for air supremacy over the British Isles. Consequently, Adolf Hitler delayed and then shelved plans for the invasion.

By 1942, fearing an Allied invasion in the west while embroiled in war with the Soviet Union in the east, Hitler endeavoured to create the "Atlantic Wall", or "Fortress Europe", by encrusting the Atlantic seacoast with concrete and steel defences.

The foundations for some of the largest German coastal artillery emplacements along the French coast were laid as early as 1940 in the Pas de Calais region, a mere 40 kilometres across the English Channel from Dover. These gun positions originally were intended to support a German invasion of Britain. Subsequently, they fired on

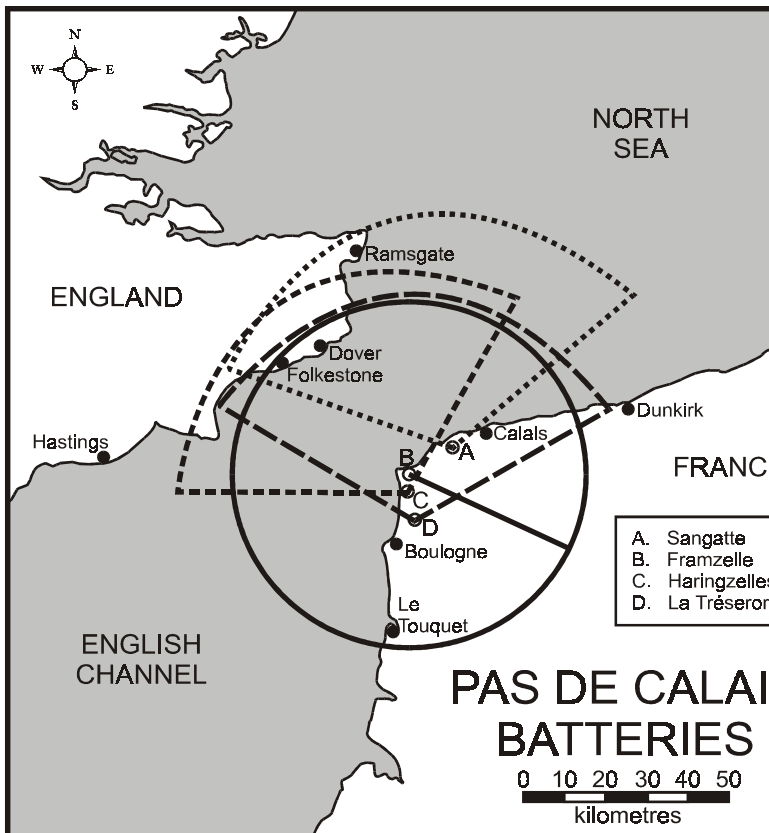
Allied shipping in the Channel and regularly shelled Dover, Folkestone and elsewhere along the British coast.

The Germans could not fortify the whole of the western European seaboard with such large and heavily-armed installations. The main portion of the Atlantic Wall stretched some 2000 kilometres from Denmark to the Spanish-French border. German military engineers built observation bunkers at wide intervals all along the coast. Lookouts in these bunkers could give warning of an Allied attack and direct naval, air and mobile land forces to the scene. Some 15,000 bunkers and other installations protected harbours and points along the shore where there were important facilities or likely landing spots. Barbed wire, minefields and other obstacles provided the first line of defence against Allied infantry and tanks. Small bunkers containing machine guns or light artillery covered these positions and protected the long-range artillery batteries. These batteries received a two-metre thick protection of steel-reinforced concrete to protect them against Allied naval and air bombardment. Hitler personally

sketched many of the bunker designs, down to the smallest detail. From 1942, the Todt Organization, a labour mobilization system notorious for its use of forced and slave labour, built most of the bunkers but thousands of German troops also toiled to prepare the Atlantic Wall defences.

Canadian and British troops first confronted the Atlantic Wall during the disastrous Dieppe Raid in August 1942. The 5000 Canadians, drawn from the 2nd Infantry Division, suffered appalling casualties in a futile attempt to storm ashore in the face of withering fire from expertly-sited German positions. The failure of this operation underlined the need for lavish fire support – from the air, from the sea, and from special armoured vehicles put ashore with the infantry – if an invasion was to succeed. On the German side, the raid spurred greater construction efforts. By 1943, 250,000 workers poured up to 800,000 tons of concrete monthly into sophisticated fortifications, some of immense proportions. In the period 1942-1944, the Germans used over 17 million cubic metres of concrete and 1.2 million metric tons of steel for the Atlantic Wall. "I am the greatest fortress builder of all time", boasted Adolf Hitler, who never once visited the Channel fortifications.

Fortunately for the Allies, the sheer scale of the project exceeded German resources. Berlin's other priorities, especially the Eastern Front and air defence of the homeland against bombers, siphoned off enormous quantities of material and labour which might otherwise have been used on the Atlantic Wall. In 1943, the German commander in



the Pas de Calais admitted that the Wall was, at best, a “thin, in many places fragile, length of cord with a few small knots at isolated points.” The most likely area for an Allied invasion attempt, a 500-kilometre stretch of coast from Calais to Cherbourg, contained the heaviest concentration of fortifications, including huge coastal artillery emplacements at Boulogne, Cap Gris Nez, Calais, and Dunkirk. The calibre of these guns was as large as 406 mm (16-inch), among the most powerful in the world.

For this reason, Allied strategists selected the less heavily defended Normandy beaches for their invasion of France in June 1944, even though Normandy was further from Britain than the Pas de Calais and less convenient for the eventual thrust towards Germany. Thousands of aircraft and hundreds of warships covered the initial Allied assault by attacking German coastal defences. Tanks fitted with amphibious equipment ‘swam’ ashore with the infantry. This massive effort caught the Germans by surprise (thanks in part to elaborate deception operations) and overwhelmed the coastal crust of defences. Although the weight of fire

completely demoralized the garrisons, it actually destroyed very few fortifications, even by direct hits. Not far inland, the German mobile reserves stopped the Allied advance, and a brutal two-month battle of attrition began. Finally, at the end of July, while the Canadians and British pinned the Germans in the eastern sector of the bridgehead, United States forces ended the stalemate by launching a successful offensive in the west. The breakout from Normandy had begun. By September, the task of First Canadian Army, operating on the left flank of the Allied advance, was to drive the Germans from their largest Atlantic Wall bastions.

First Canadian Army captures the Channel Ports

The Allies raced rapidly through France and Belgium. With the Germans demoralized and apparently beaten, the end of the war seemed at hand. But Allied commanders argued over their options: should they move to open the approaches to the great port of Antwerp or advance on the Ruhr

valley, Germany’s industrial heartland? Serious resupply problems aggravated the situation and further slowed the advance. The German defenders recovered their balance, maintained their grip on Holland, and reinforced their Atlantic Wall garrisons in the Pas de Calais.

General H.D.G. Crerar, First Canadian Army commander, had two army corps under his command: I British and II Canadian. Crerar ordered the British to open the port of Le Havre, and the Canadians to clear the Channel coast as far as Holland. The Germans withdrew most of their nearly surrounded forces and formed a new defensive line north of Antwerp. Some Atlantic Wall garrisons stayed behind, however, obeying Hitler’s order that Dunkirk, Boulogne, and Le Havre be defended to the last man. (Hitler later added Calais to the list.) All lay directly in the path of First Canadian Army.

Allied planners believed these Channel ports to be important for resupplying the Allied armies in their drive towards Germany. On September 9, General Crerar sent the following message to his corps commanders: “A speedy and victorious conclusion of the war now depends, fundamentally, upon the capture by First Cdn Army of the Channel ports which have now become so essential...”

The heavy gun positions in the Channel ports were carefully sited for mutual support and encased in steel and concrete bunkers. Built on high cliffs and pointed to seaward (few could fire inland), they were virtually impregnable to a frontal assault. But they also suffered from some important weaknesses. Because German commanders did not seriously fortify the land approaches to their positions until the Normandy front collapsed, the usual array of anti-tank ditches, minefields, and barbed wire, while formidable, was incomplete. The garrisons, moreover, included few battle-hardened troops. One of their own commanders described them as “fortress troops, sailors, home guards, harbour technicians and

stragglers” of dubious fighting quality. Cut off behind enemy lines, their morale was poor; faced with death or capture, most opted unhesitatingly for the latter.

Because such weaknesses were not immediately evident, British and Canadian troops approached the fortresses warily. British troops under Canadian command first captured Le Havre on September 12 after devastating air, naval, and artillery attacks. On the 17th, it was Boulogne’s turn. The objective of Major-General Daniel Spry’s 3rd Canadian Infantry Division was to “capture Boulogne and destroy its garrison”, which numbered nearly 10,000 men. Prior to the assault, Canadian commanders concluded Boulogne would be a tough nut to crack and that the objective would have to be ‘softened up’ first. After waves of heavy and medium bombers saturated the defences, massive artillery barrages from 328 British and Canadian guns rained thousands of shells on the target. Flail tanks (tanks mounting a drum on the front fitted with coils of chain) then pounded paths through minefields for armoured infantry carriers and other tanks carrying flame throwers and bunker-busting explosive charges. This enabled the infantry to attack the defensive positions. Nevertheless, the German bunkers were so well constructed that one Canadian officer remarked the armour-piercing shells of the Canadians’ Sherman tanks “used to bounce off the installations like peas on a tin roof.”

Though Spry’s division lacked naval gunfire support, he did have an unusual substitute. Two 14-inch and two 15-inch British guns firing from Dover shelled German coastal positions in the Calais-Cap Gris Nez area up the coast from Boulogne to prevent the massive 16-inch guns there from disrupting the Canadian attack. Boulogne’s German commander later remarked that he knew “when the attack did come it would be thoroughly prepared to the last weapon, and that the Canadians would attempt to take the port with as few casualties as possible.” He was



Photo by Lt. D. I. Grant, National Archives of Canada PA 131243

Private F.J. Coakley of the North Shore (New Brunswick) Regiment sits on one of the guns near Boulogne that made up Hitler’s Atlantic Wall.

correct in more ways than one, for as the attack neared, the Canadians and Germans, concerned about civilian casualties, negotiated an agreement to evacuate 8000 residents from the city. Despite massive artillery and bomber support (nearly 800 aircraft dropping 3200 tons of bombs on September 17), few of the German defensive installations were seriously damaged. It still took infantry and tanks six days to secure the fortress-port. The Canadians lost 634 killed, wounded and missing; they captured over 9500 Germans.

Boulogne’s port facilities had been severely damaged and, in any event, could not be used effectively until the Allies reduced the nearby batteries at Cap Gris Nez and Calais. These were equally formidable. A combination of natural and constructed defences surrounded Calais, the location of no less than seven heavy coastal batteries. A somewhat lacklustre garrison of over 7500 men defended the flooded landscape dotted with concrete bunkers linked by barbed wire and minefields and covered by artillery and anti-tank guns. The 3rd Division watched as hundreds of bombers dropped their loads for three

successive days prior to the assault, which began on September 25. Artillery fire drenched each German bastion in turn to allow flame-throwing tanks to get close enough to perform their grisly tasks. This kind of pressure ground down the morale of the defenders, causing some to surrender after only token resistance. On October 1 the fight for Calais and its great guns ended. The Canadians suffered about 300 casualties and took 7500 prisoners. As at Boulogne, the port installations in Calais, so needed to resupply the Allied armies, were badly damaged.

The other major German Atlantic Wall positions in the Pas de Calais were the colossal gun positions at Cap Gris Nez. These consisted of three main batteries, including one, Battery Todt, whose four 380 mm (15-inch) guns had intermittently shelled Dover since 1940. The Canadians followed the same successful plan of attack as used at Boulogne and Calais: massive aerial bombardment and supporting artillery fire. The 3rd Division’s 9 Brigade made the assault at dawn on September 29. Flail and bunker-busting “Petard” tanks provided support. “When our troops moved up to engage the batteries on the coast”,

an officer of the 1st Hussars (6th Canadian Armoured Regiment) recalled, “they found that the Hun was prepared to snipe at our tanks with anything up to 360 mm calibre guns. The shells from those became known as ‘freight trains’ mainly because they whooshed by with a terrifying noise. It sort of shook us to see what they could do...”

The War Diary of the Ontario-based Highland Light Infantry (HLI) of Canada for September 29 states: “The artillery opened up and laid down a terrific barrage...which was very effective in keeping the enemy’s heads down. As soon as our troops got into the enemy positions the white flags started popping up...By 1030 all four big guns had been taken by the HLI, and the North Nova Scotia Highlanders reported they had cleared up the four on their front...The battalion tonight is in high spirits after its successful effort today. Now the people of Dover can relax...knowing that the cross-channel guns are silenced.” The costs were relatively light: eight killed and 34 wounded. Over 1600 Germans surrendered.

First Canadian Army demonstrated a high degree of skill and professionalism in capturing some of the most sophisticated defensive positions in Europe and in overcoming the impressive military engineering feat that was the Atlantic Wall.

Blockhaus: Fortress Europe in Photographs

Laura Brandon

Peter Mackertich is at heart an architectural photographer. What he responds to is the built environment, a world of buildings in which he sees a beauty in structures that once represented, and

harboured, the ugly. This interest has perhaps manifested itself in the fact that he converted a former abattoir into his current family home and studio. Like his renovated slaughterhouse dwelling, the derelict war-time buildings on view in his photographs also once represented the ultimately terrifying. The buildings reveal themselves now as structures of beauty, becoming one with a land they once held in subjugation.

Mackertich’s large-format black and white photographs are the result of several recent years of exploring many of the abandoned German bunkers in France. These massive concrete structures are the legacy of an attempt to hold Europe captive. For the most part pale shadows of their former selves, these imposing grey buildings survive as shells. Their time has passed. Instead, their crumbling edifices are approachable, and can be examined in something of a detached manner. Like the regime that built them, they are defeated, and, as discarded buildings have lost much, but not all, of their potent fear-inspiring power.

With one meaning gone, Mackertich reveals another. We can see the links these buildings have to the history of western architecture, and to the modern movement that spawned much of the architecture we live in and work in today. Mackertich’s images serve to remind us that the powerfully expressive, monumental and imperious architecture of the Third Reich had not only a Nazi past, but a past that spanned two centuries, was widely influential, and endured far longer than that of the regime Mackertich’s subjects represent. In this time-line, defeat, as represented in his photographs of abandoned and decaying structures, is only one kind of defeat. The modern architectural

style was not defeated, but survived, released from the meaning it once had, to survive in large part as the acceptable institutional architecture of today. Mackertich’s conversion of an abattoir into his own home, and his photographs of war-time structures, stand as symbols for an ongoing historical and cultural process that allows the meaning of all buildings to change over time.

Mackertich, who was born shortly after the end of the war, has taught photography, and practised as a commercial photographer in England. In 1976 he published a book on industrial decorative architecture entitled *Facade*. Six years later the British *Architectural Journal* nominated him ‘Photographer of the Year’. His collaboration with artists on a number of projects has perhaps contributed to the almost painterly quality of the photography in this exhibition. His work shows an interest not only in the architectural subject matter, but in its presentation. The surrounding vegetation, the spaces that are not architecture, are as important in the image as the buildings themselves.

Further reading:

Very little has been written about First Canadian Army’s liberation of the Channel ports. Some of the most useful sources are:

C.P. Stacey. *The Victory Campaign*. Queen’s Printer. Ottawa. 1966.

Terry Copp and Robert Vogel. *Maple Leaf Route: Antwerp*. Alma, Ontario. 1984.

“Battlefield Interviews: The Channel Ports, September 1944”, *Canadian Military History*, Vol. 3, No. 2, 1994.

On the Atlantic Wall, consult:

Keith Mallory and Arvid Ottar. *The Architecture of War*. Pantheon Books. New York. 1973.

Colin Partridge. *Hitler’s Atlantic Wall*. D.I Publications. Guernsey. 1976.

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