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Learning from the Canadian Corps on the Western Front

Christopher Pugsley

You can have an entirely civilian army and, if it's entirely civilian its members will be dead before they are good.¹

Brigadier-General (later General) A.G.L. McNaughton

There is a curious paradox about the Canadian Corps that is summed up in this quotation from *Canadian Brass*, Stephen J. Harris's study of the evolution of a professional army in Canada. How did this military organisation become so effective in war, considering the background it had and the structure that supported it for most of its existence? This model of tactical excellence was born amid the chaos of Canadian Minister of Defence Sam Hughes' egomaniacal control at Valcartier Camp. It was beset by jealousies, political backhanders, corruption and influence peddling, and saddled with favourites as incompetent officers who at best were "very weak" and had "no power or habit of command."² Hughes determined to ensure that no Regular soldier received a command appointment, and instead put in his favourites. These were drawn from the citizen militia, whose ability was summed up by the young iconoclast and future military theorist J.F.C. Fuller, who remarked that the Canadians had potential only "if the officers could all be shot."³ Yet the Canadian Expeditionary Force (CEF) rose above this administrative nightmare, even if its impact continued to haunt the force for most of its existence.

By 1918 the Canadian Corps was the most effective fighting formation among the British armies on the Western Front, superior in performance to its vaunted Australian contemporary in terms of organisation, tactical efficiency and staying

power. This was in large measure due to the guiding hand of perhaps the most brilliant corps commander of the war, the unlikely, diffident, corpulent figure of Lieutenant-General Sir Arthur Currie.

Recent historical studies in Australia, Canada and New Zealand demonstrate that we are at last moving away from what Jeffrey Keshen calls "the cult of the superior soldier,"⁴ one where "Johnny Canuck" or "Tommy Cornstalk," the "Aussie," "Digger," "Fernleaf" or "Pig Islander" of Australia and New Zealand dominates the popular imagination of national achievement and identity in each country's mythology of the First World War. Read C.E.W. Bean's Australian official histories,⁵ or Pierre Berton's *Vimy*, and parallel images are displayed, of a fierce, individualistic, rough-around-the-edges soldier who is also somehow self-disciplined and fearless in battle; a soldier who is seen as uniquely Australian or uniquely Canadian. As an aside, the New Zealanders knew they were unique, but never had the prophets to proclaim it quite so vehemently, although Robin Hyde's image of James Douglas Stark in *Passport to Hell* comes close.⁶ As I have argued in earlier chapters, something more than distinctive national traits accounts for success in battle. Examinations of experience on the Western Front show that Australia, Canada and New Zealand followed parallel paths in the evolution of professional citizen expeditionary forces during the First World War.



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A formidable pair: Lieutenant-General the Honourable Sir Julian Byng (left) and his successor as General Officer Commanding, Canadian Corps, Lieutenant-General Sir Arthur Currie. Both were tactical and organizational innovators who forged the Canadian Corps into the outstanding premier corps on the Western Front.

This chapter examines some of the points of contact between the three dominion forces in the Great War, and highlights the influence of the Canadian experience. One should not assume that the title is influenced by my receiving a Canadian Studies Grant for 1998; rather it reflects the simple reality that the Canadians got to the Western Front first, while the Gallipoli Campaign sidelined the Anzacs in 1915. When the Anzacs arrived in France in March 1916 the Canadians were already veterans in theatre. They had demonstrated their prowess in holding the line under gas attacks at the second Ypres, when the 1st Canadian Division formed part of British V Corps in April 1915.⁷ While the “sideshow” of the Anzac landings on Gallipoli were occurring in the same week, they were not considered to have the same significance as they were far removed from what was regarded as the primary theatre of conflict.⁸ Ironically, the formation of the Australia and New Zealand Army Corps (ANZAC Corps) was used as the precedent for the drive to form the Canadian Corps after the arrival in France of the 2nd Canadian Division in September 1915.⁹

On 5 June 1916, two months after Lieutenant-General Sir William Birdwood’s I ANZAC Corps arrived in France, the first formal Australian trench raid on the German lines was mounted by combined parties of 26th and 28th Battalion of 7th Brigade in the Armentières sector of northern France. The raid was carefully planned and, as C.E.W. Bean recounts:

The whole party was withdrawn for a fortnight to a rear area, and there went into training after the fashion of a football team before an important game. This included a sharp course of physical training, and close practice in carrying out its raid. A replica of the enemy’s trench, which had been photographed from aeroplanes, was dug on the training ground and the operation was rehearsed again and again until it went almost automatically.¹⁰

This was the first of a series of raids mounted against the German lines, as preparations for the Battle of the Somme further south grew in intensity. The British Commander-in-Chief, General Sir Douglas Haig, was demanding

every effort all along the trench lines held by the British armies to prevent the Germans thinning out numbers and sending reinforcements south to the Somme front. In taking over the line forward of Armentières, the Australians and New Zealanders were very conscious of their amateur status. The independence that marked the Gallipoli Campaign was gone, since in France this was regarded as a sideshow and no test of worth. Instead, they now numbered five of the 50 British and dominion divisions of the British armies facing the real enemy in the form of the German Imperial armies in the trenches of the Western Front.

In mounting this first raid the Australians sought outside expertise, requesting assistance from the Canadian Corps; as “the Canadians were the pioneers in enterprises of this kind, two of their officers were borrowed from the 1st Canadian Division to assist in training the team.”¹¹ The New Zealand Division sought similar assistance from the Canadians in mounting their first raid; the training notes and lesson plans used by the New Zealand Division in training young officers in patrolling in no-man’s-land, and in the techniques of trench raids, were drawn from Canadian Corps experience.¹² The Anzacs had already benefited from their experience after receiving grim reports of the Canadian difficulties with inadequate camp facilities and the resulting breakdown in health during their training on the wintry Salisbury Plains over Christmas 1914. This had been a significant factor in the decision to assemble and train the ANZAC Corps in Egypt instead of proceeding on to the United Kingdom. Both the Australian and the New Zealand Divisions of the ANZAC Corps also requested and received reports on operations, administration and discipline. This included visiting Canadian field punishment centres, as reported in this visit to the 1st Canadian Divisional Field Punishment Station at Westhof Farm on 31 March 1916.

Prisoners had their heads clipped as soon as possible after being admitted ... They were not allowed to have tobacco, rum, beer, lights, or matches, nor were they allowed any other food than that issued to them, and in order to avoid prisoners smuggling such things into their sleeping quarters, it was necessary to search each prisoner returning from working parties or parades ... Any man found guilty of insubordination or breaking any rules during the days, or who in any way gave trouble — such as reporting sick without sufficient cause or being

found with forbidden articles in his possession when searched — was tied up after returning from work at night. On one occasion during stormy weather some of the prisoners refused to work, but the extra punishment of being tied up out of doors in a storm and afterwards solitary confinement in a dark cell on a diet of bread or biscuit and water, prevented recurrences of this nature.¹³

The draconian methods practised by the Canadians impressed the Anzac visitors, and were adopted by both the Australians and the New Zealanders in the running of their field punishment centres. Both Birdwood’s I ANZAC Corps and Godley’s II ANZAC Corps were conscious that the Canadians were the veterans among the dominion forces on the Western Front.

There had been little pre-war contact; unlike Australia and New Zealand, Canada had followed the British system of a voluntary militia and had not brought in compulsory military training for its citizen army. From the outset it had been employed in the primary theatre of war on the Western Front, and with the arrival of the 2nd Canadian Division it became the Canadian Corps in September 1915. The continued ad hoc expansion of the Canadian Corps beyond the resources of the Canadian population to effectively sustain it occurred in parallel with the expansion of the original ANZAC Corps into two corps. In July 1915 the Canadian Government planned for an expeditionary force of 150,000. In October 1915 this was increased to 250,000 and on New Year’s Day 1916 the Canadian Prime Minister, Sir Robert Borden, announced that Canada would raise an army of 500,000.¹⁴

The dangers of this unchecked growth were seen by Major-General Willoughby Gwatkin, the Canadian Chief of General Staff, who warned the government that Canada might not be able to find the men to sustain the force once it was raised. This warning was ignored by Hughes, who bulldozed his demands through, assuring the prime minister that the “third division in an army corps was almost always in reserve and immune from casualties.”¹⁵ Equally important and equally difficult was finding the staffs needed to oversee these fighting formations. Experience was lacking at every level but was particularly evident within each of the 12 infantry battalions from commanding officer to private.

This was also the Anzac experience. In spite of the Gallipoli Campaign, the rapid growth of the Australian Imperial Forces (AIF) and the New Zealand Expeditionary Force (NZEF) into two corps dangerously stretched the limited command and administrative abilities within both the Australian and the New Zealand forces, particularly when the first elements were dispatched to France barely six weeks after being raised. Early May 1916 saw them in the trenches in the “nursery” sector at Armentières conscious of their lack of experience, determined to do well, and keen to seek advice. That they turned to the Canadians for this was inevitable. It too was a dominion citizens army raised in similar circumstances to their own. The Kitchener New Army divisions, which had been raised in similar circumstances, had been found wanting in Anzac eyes on the Gallipoli Peninsula. Being British divisions they did not face the unique demands of establishing administrative bases for reinforcement and training in the United Kingdom, or of dealing with national concerns of pay, mail, administration, welfare and the provision of reinforcements. Both Anzac forces were keen to learn from Canadian mistakes. While administratively the Canadian system in Britain was initially a chaotic bottleneck, exemplifying Hughes’ interference and meddling, the Canadians’ fighting reputation became the benchmark to aspire to. Both the AIF and the NZEF were determined to match the Canadian achievement and have the best divisions on the Western Front.

The “nursery” experience of May to August 1916 was anything but easy for the two ANZAC corps. They were ill-prepared for the demands placed upon them by the Somme offensive. The constant raids, the extended divisional frontages, and prolonged tours of duty in the trenches came close to breaking the inexperienced divisions. They were learning the hard way what the Canadians had learnt in the previous 12 months; that poor administration and a lack of leadership led to disciplinary problems characterised by skyrocketing courts martial, principally for absenteeism and drunkenness. As we have seen, inexperienced Anzac officers attacked the symptoms rather than the causes, and by tightening discipline rather than improving welfare and administration saw disciplinary statistics continue to rise. When the ANZAC corps arrived in 1916, courts martial in the Canadian

divisions averaged 40 a month compared to over a hundred in each of the Australian and New Zealand divisions. However, this disciplinary pattern exactly paralleled the Canadian experience of 1915; they too had problems in the first 12 months, until the Canadian Headquarters improved its skills in managing its growing force of what were now three divisions, a fourth joining by late 1916. Twelve months later, in 1917, with more experience and better administration, the Canadian, Australian and New Zealand divisional disciplinary statistics were similar. Each national force was fiercely competitive and determined to improve. Each was aware that standards were judged not only by performance in battle, but also by standards of drill, discipline and saluting. Despite what one would like to believe today, each national force demanded conformity within its ranks to the standards of the British armies in which they served.

On the Western Front in 1916 and 1917 the dominion forces were made up of hard men facing hard times, and as the description of the Canadian field punishment centre shows, if soldiers did not conform they were broken as an example to the rest. This also applied to capital punishment, which saw soldiers who were found guilty of capital offences such as mutiny and desertion risk facing the firing squad. All three national forces were equally hard on those who deserted and threatened their good name. All three displayed a willingness to impose the death sentence by courts martial made up of citizen officers of each force standing in judgement of their own.

Tactically the Canadians showed a superiority gained through their longer experience on the Western Front. In 1916 both the Australians and the New Zealanders showed their lack of command and tactical skills. The attack at Fromelles on 19–20 July at a cost of 5533 casualties was a disaster for 5th Australian Division, one that would take the rest of the year and a change in command to recover from. Equally, on the Somme the calibre of the men could not compensate for poor command and staff skills in the Anzac formations. All three dominion forces employed the stereotyped infantry wave tactics, which although successful when employed with the developments in artillery tactics such as the creeping or rolling barrage, came with a fearful cost — an average on the Somme of 7400 in each division.

Popular belief portrays the Western Front as a place where unimaginative generals, totally out of touch and secure in their chateaux kilometres behind the front line, sent soldiers to their deaths in frontal assault after frontal assault. “Lions led by donkeys” and “Butcher Haig” are clichés cemented in public consciousness. In recent years there has been a sea-change in thinking among military historians. In discussing the influence of the Canadian Corps on Anzac thinking, and indeed on the British armies as a whole, let me first explain the revolution in tactical doctrine that occurred on the Western Front, one that irrevocably changed the nature of warfare. It was a revolution in tactics that was overseen by the “donkeys” of generals who we still identify as “butchers,” and perhaps suggests that they

before the final attack on the enemy with rifle and bayonet. This was matched by a change in organisation in the infantry battalion from the eight-company structure — so effective for the linear formations that had been the underpinning strength of British drill and tactical manoeuvre from Wellington’s successes in the Napoleonic Wars and in the colonial wars that followed — to four double-strength companies, each of four platoons. This was the organisation with which the British armies and the dominion expeditionary forces went to war.

This was a radically new organisation that put a junior officer or subaltern in charge of 40–50 men, who were further subdivided into four sections, each of 10–12 soldiers under the



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The desolate battlefield – tangled banks of barbed wire covered by rifle, artillery and machine gun fire from the shelter of trenches presented a tactical problem that had to be solved if infantry were to attack successfully on the Western Front.

achieved more than we credit them with. This is certainly my belief, so let me expand on this.

The problem the British armies faced on the Western Front was one that had been evident to discerning military minds since the American Civil War. The advent of massed rifle fire increased the effective infantry killing range from 80 metres for a musket to 250–300 metres for a breech-loading, magazine-fed, bolt-action rifle. This has not changed, and at the beginning of the twenty-first century this is still the laid-down killing range for infantry personal weapons.

The British Army appreciated this after the hard lessons of the Boer War, and section rushes (essentially “fire and movement,” which is the essence of military tactics today) within half companies, there being no platoon organisation, became the tactical means of closing with an enemy. The fire fight had then to be won by massed rifle fire and British infantry were trained to fire 15 rounds rapid in the first deadly minute, with their bolt-action Lee-Enfield rifles,

command of an NCO. Platoons had not existed in the British battalion organisation before this, and how it was to work was still being evolved when the British Army went to war in 1914.¹⁶

The small British Expeditionary Force (BEF) demonstrated the benefits of both the organisation and their tactical skills in the opening defensive battles of Mons and Le Cateau, and again in the struggle to hold on to Ypres in October and November 1914, which led to the destruction of this professional elite. The dominion expeditionary forces mobilised to reinforce the BEF initially trained in these skills in 1914. As photographs in the Alexander Turnbull Library show, the Wellington Infantry Battalion, for example, practised section and platoon rushes over the sand dunes near Miramar where Wellington International Airport now stands. Those who now decry what they see as outdated Boer War tactics, blaming them for the formalised slaughter on the Somme in 1916, fail to realise that the evolution of these same tactics of section and platoon rushes to avoid

presenting the defending riflemen with a massed target was the secret of the British armies' success in 1918. It was the British failure to retain these tactical skills in the raising and training of the mass citizen armies that led to the slaughter on the Somme on 1 July 1916. The small-group tactical doctrine used in the British Army of 1914 was perfectly suitable for closing with the enemy on the Western Front, but it was a skill that was lost with the destruction of the professional army at Ypres and had to be relearned and reapplied through hard experience.

Regular British soldiers at Mons and Le Cateau in 1914 were surprised that the attacking German formations made little attempt to advance across the fire zone by fire and movement in section and platoon rushes, as the British had been taught. Instead they attacked in massed ranks and suffered for it. The German attack method showed the reality of the state of tactical skill of a European conscript army, but one where a lack of tactical skill within regiments was compensated for by the higher-level operational and administrative skills of its General Staff. Those British Regulars who survived the first months of fighting would see the level of training and skills that they took for granted within their battalion become diluted and deteriorate to the same levels they witnessed in

the German ranks in 1914. It takes time to train a small group to work in pairs, with one soldier firing as the other rushes forward, and with a section of 10–12 men working in pairs rushing forward while covered by the rifle fire of other sections. Replicate this with the platoons moving forward in the same manner, covered by other platoons, and the same at company level, and you begin to recognise the degree of professional skill required to do it in battle army wide. The British Army of 1914 had this skill; its successors from the Territorial and New Armies did not, and had to find it, but before they could do so they had to appreciate its importance; all of this evolved by trial and error.

Kitchener's New Armies were made up of the finest material ever seen in a British army. It was of a calibre that would never be seen again, certainly not in the Second World War where the competing demands of the Royal Navy and the RAF, and the growth of specialist arms in the army, meant the infantry arm received what was left over after the cream had been skimmed off. The vast potential of Kitchener's citizen armies was fitfully used. The army administration that existed in Britain was barely able to house and feed the influx of recruits let alone provide the degree of training needed at every level from soldier to commanding officer.



A citizen army whose training had to be entrusted to long-retired veterans unfamiliar with the tactical evolution that had occurred since the Boer War was trained in mass and used in mass in the linear formations of the nineteenth century. The trainers had not the knowledge or the experience of the tactics that had evolved since the end of the war in 1902, and they trained the New Armies in those drills that had been effective in the small colonial wars that had been their experience. They had never experienced the four-infantry-company-strong battalion organisation, nor were they familiar with the new platoon organisation. They were used to operating

The machine gun formed the backbone of the defensive fire plan as it was capable of placing a wall of fire effective out to 1800 metres, through which infantry had to pass if they were to gain the German trenches. Here, Lieutenant-General Sir Julian Byng examines some German machine guns captured during the Arras offensive, May 1917.



Success on the Western Front was brought by a marriage of improved artillery and artillery and infantry tactics and organisational changes that took advantage of technical developments. Here a Canadian 18-pounder gun team loads its limbers for the next mission, May 1918.

in companies and half-companies and were too old to change. The so-called “Boer War” tactics of section and platoon rushes standard in the Regular Army and aspired to by the dominion forces were allowed to lapse, and were replaced by the formalised lines of advancing infantry that were shot down in their rows by German machine guns on the Somme on 1 July 1916.

The infantry assault was a task made much more difficult by the defensive firepower of the machine guns that now formed the backbone of the defensive fire plan in the trench lines along the Western Front. Belt-fed, effective out to 1800 metres and firing on fixed lines by day or night, they provided a continuous stream of bullets through which flesh and blood had to pass before men could attempt to cross the belts and tangled mass of barbed wire that protected the German trenches. A man could stand up and walk forward, laden with 30 kg of webbing, equipment, accoutrements, ammunition, grenades, rifle and bayonet, but did not have the training or the tactical skill to suppress, isolate and destroy the machine guns that barred his way. Enthusiasm was not enough, and even this vanished after the first slaughter to be replaced by an overwhelming desire on the part of every individual to survive and return home. Weight of materiel in the shape of massed artillery fire was the answer to opening the way for infantry to advance, but on the Somme this was still a blunt instrument.

There was little coordination — only a blind belief that the sheer weight of shellfire must destroy the German defences. Artillery techniques improved markedly as the Battle of the Somme progressed. These started to provide the essentials needed to keep the attacking infantryman alive as he advanced by first destroying the wire that blocked his advance, then by suppressing enemy artillery fire while he advanced and secured his objective, and also by giving him covering fire to mask his movement while he moved forward.

Yet artillery support was only one of the key elements in achieving tactical success on the Western Front. Artillery fire cannot be brought down closer than some 130 metres from your advancing troops. Think about what that means if you are attacking across a boggy, recently ploughed paddock towards a distant fence line representing the German front line. Now picture yourself with a rifle and bayonet, webbing, water bottle, 200 rounds of ammunition, entrenching tool, grenades, iron rations, and so on, all weighing about 30 kilograms. How long would it take you to walk or jog this distance? Three or four minutes? More? Artillery fire has covered your approach up to this point, but if it continues to fire as you go forward you run the real risk of being killed by the explosion of your own shells. At 130 metres it has to lift and move away from you. How long will it take you to cover this distance and what is the enemy at the



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Two tanks belch smoke as they move forward during the Amiens offensive, 9 August 1918. Tanks were too slow and mechanically unreliable to be an effective breakthrough weapon, but provided valuable support to infantry in crushing barbed wire and destroying machine gun posts.

fence line likely to be doing? In essence, that is the problem that faced attacking infantry on the Western Front; at some point when close to the enemy they had to advance over the last critical metres of ground without artillery support.

The importance of fire and movement at platoon level was the tactical revolution that led to the breaking of the trench deadlock. The skills of 1914 and the lessons of the Boer War had to be relearned by amateur armies commanded by Regulars who had never had to think on this scale, so it was a learning process for all.¹⁷ The story of the First World War on the Western Front is one of the evolving professionalism of citizen armies over four years from 1915 onwards, and the dominion forces shared that process with the Canadian Corps leading the way.

The best of the divisional and corps commanders evaluated the Somme experience and profited from it. This was certainly true of Lieutenant-General the Honourable Sir Julian Byng's Canadian Corps. Bill Rawling's detailed study in *Surviving Trench Warfare* shows the growth in tactical development between the Somme and the Canadian attack on Vimy Ridge in April 1917. Rawling's careful evaluation, which minutely examines both relative success and failure, is a record of outstanding Canadian achievement that places it at the forefront of the tactical revolution that was occurring in the British armies on the Western Front.¹⁸

The Canadians were fortunate in the calibre of their British corps commander, "Bungo" Byng, who took command of the corps in May 1916 after his predecessor proved more expendable than failed Canadian divisional and brigade commanders.¹⁹ With a reputation of being a "cheerfully unintellectual cavalryman," Byng proved to be anything but, demonstrating a tactical grasp that places him at the forefront of British generals on the Western Front.²⁰ It is clear from his directives that he was a practical, thinking general who in his eight months in command of the Canadian Corps was determined to work out how to attack successfully at minimum cost. Equally importantly, he understood the particular nature of the men he commanded. He recognised that a citizen army had to be treated and trained differently from Regulars, noting that it was important for senior officers to become involved at levels that would not be contemplated in a Regular formation but, "when so many Senior Officers in Battalions are still inexperienced, the interference even of Corps and Divisional Commanders in the training of the Platoon was beneficial."²¹

Directives from above were not enough when inexperience at every level of command down to private soldier meant that the few professionals who knew what to do had to get involved and by hands-on involvement and advice teach staffs and units the business of both how to manage fighting and the business of fighting itself. This

was the reality in every dominion force. Byng also recognised and preached that it was at platoon level that the key to tactical success in breaking the trench deadlock was to be found. He was not alone. Throughout Haig's armies commanders and staffs were assessing the lessons of the Somme, and fighting and thinking commanders at army, corps and divisional level were suggesting changes. Led by Haig, his army commanders Plumer, Rawlinson and even the much-maligned Gough in Fifth Army knew there had to be a better way and groped towards solutions.

The Canadian Corps staff, pondering on the lessons of the Somme, sent Major-General Arthur Currie to visit the French at Verdun and assess their organisation and training. As a result organisational changes were made to the platoon structure within the infantry battalions that would anticipate army-wide changes in the months ahead.²² Currie's report from Verdun, as Hyatt explains in his incisive biography of this little-appreciated general, was not just a record of what he saw of the French organisation and tactics. It was more an evaluation of what the Canadians had learnt from what they had done wrong in the fighting around Pozières after replacing the Australians in late September 1916. It was a thoughtful assessment of how the organisation, communication and training had to improve within the corps, both in terms of the infantry who carried out the attack and in what the artillery needed to do to ensure they could get forward.²³ Currie's notes are rich in detail that one recognises became integral to British tactical doctrine; indeed, much of it was already being practised and experimented with. He summarised the primary factors behind successful French offensive operations as "careful staff work," thorough "artillery preparation and support," the "element of surprise," and the "high state of training in the infantry detailed for the assault."²⁴

Currie was impressed by the fact that the French were producing what he termed "'storm' troops on a large scale." If one looks at its subsequent adoption in the British armies, one can see that by late 1917 every British soldier was trained in the tactical skills of fire and manoeuvre. It is this scale of training that marks the critical difference between the Allied approach and that of the Germans, where the *Stosstruppen*, or

specialist storm-trooper, remained an elite and the German Imperial Armies suffered for it.²⁵ Crucial to this was the need to improve tactical skills within the infantry battalions. Currie noted in his report:

Too often, when our infantry are checked, they pause and ask for additional [artillery] preparation before carrying on. This artillery preparation cannot be quickly and easily arranged for and is often not necessary. Our troops must be taught the power of manoeuvre and that before giving up [and asking for more artillery support] they must employ to the utmost extent all the weapons with which they are armed and have available.²⁶

Both Byng and his Canadian subordinates appreciated that the Somme fighting had demonstrated "that the present organization and training of our Infantry have not succeeded in developing the maximum offensive firepower bestowed by the weapons with which it is now armed."²⁷ Where it was going wrong was with a lack of effective fire and movement at platoon level. The critical problem was that you could not keep artillery firing until the infantry reached the enemy trenches because if you did, you would kill your own men. As discussed above, the closest the infantry could come was 130 metres before the supporting artillery had to lift and move away from the attacking troops. This was the problem facing any attack on the Western Front, as these minutes gave the enemy time to react and man his trenches and machine guns. It was in these critical minutes that the infantryman had to fight his way forward with the weapons he had at hand; artillery could no longer directly assist him. It was Byng's assessment that once the supporting artillery fire lifted then success or failure depended on how effectively the platoons dealt with the machine guns and obstacles in front of them. As he wrote:

The largest unit that, under modern conditions, can be directly controlled and manoeuvred under fire by one man is the Platoon. The Platoon Commander is therefore in most cases, the only man who can personally influence the local situation. In fact, it is not too much to say that this is the Platoon Commander's war. Realizing this, it becomes the duty of the Company Commander to see that each Platoon is trained by its leader to act either with independence or as a component of the Company. In each case the fullest development of all the various Infantry weapons should be the object to be achieved.²⁸

The problem was that the existing four-platoon structure in a rifle company based on 50-strong platoons was too inflexible. It became a means of administration rather than an effective command, giving the platoon commander “no command worthy of the name and little or no opportunity of training either his men or himself to realize their capabilities.” Changes were needed to the platoon organisation, making it smaller and more adaptable yet still giving it both the numbers and the specialist skills needed to make best use of the weapons technology available.²⁹ Inexperienced commanders both at company and platoon level did not know what was required of them, and fell into the trap of centralising command at company level and not using the platoons as tactical and organisational sub-units within the company.

Byng directed that in the Canadian Corps infantry platoons were to consist of a platoon headquarters and four sections with a maximum strength of 44, and at least 28 strong, which he regarded as the working minimum. Each of the four sections had to have “its own leader, and an understudy.” One section was to be Lewis gunners, to give the immediate fire support with the Lewis light machine gun to the other three sections; one was to be a bombing section armed with hand grenades; while the other two sections were to be riflemen, and would also include a number of rifle grenadiers firing rifle grenades. In effect there was one fire support section based on the Lewis gun to give covering fire, with three manoeuvre sections to fight their way forward covered by that fire. The gas-operated magazine-fed Lewis machine gun gave the British a genuine man-portable weapon with the firepower to assist infantry in the attack. Its adoption revolutionised the fire support available within a platoon. Its firepower more than matched the rifle fire of the entire platoon; the principal problem was carrying enough of the 47-round-capacity circular magazines to keep it firing.

Byng saw it as essential that “the Platoon should constitute a unit for fighting and training, and should consist of a homogeneous combination of all the weapons with which the Infantry is now armed.” The key to success was maintaining the strength of the rifle platoons. Battalions out of the line had to give priority to platoon training, and ensure that platoons were kept up to strength, avoiding the tendency to drain off platoon

manpower for appointments in battalion. Corps schools were set up to train instructors, and to train officers and NCOs in the skills that were required. In particular Byng wanted to achieve the following levels of expertise:

(i) Train the Platoon Commander in handling his Platoon, not only in a set piece previously rehearsed, but in dealing with unforeseen situations such as must occur both in attack and defence.

(ii) Train every man in the platoon to act in case of necessity as specialist, i.e., as a bomber, rifle grenadier, or Lewis gunner.³⁰

This platoon-level revolution was adopted army-wide in February 1917 with directives from Haig’s General Headquarters. It was these directives that led to the new platoon structure being introduced into the New Zealand Division and its Australian counterparts in I and II ANZAC Corps, but as we have seen the Canadians had already anticipated its need and introduced its recommendations.³¹ Once again it is easy to direct from above, but it was the willingness to adopt these changes and make them effective within the division that marked out the better divisions. How difficult this was for a British division in the line is captured by Lieutenant Colonel Cecil Allanson, who commanded the 6th Gurkhas in the August offensive of 1915, where he was wounded and recommended for the Victoria Cross. In early 1917 he was GSO1 of the 57th Division that was just arriving in France when he was informed of the changes to the platoon organisation. He was very critical that this instruction had not reached him in England “so that our final training could have been carried out under these conditions. With a division spread out along miles of trenches, reorganisation is difficult, and will receive but scanty attention — from force of circumstance — by experienced officers.”³²

It was here that the Canadians took the lead, and with Byng’s drive ensured that the changes became standard in all four Canadian divisions. This was possible because the Canadian Corps was unique in having a fixed homogeneous grouping. The only other corps similar to this were the two ANZAC corps, but even in these, additional divisions were attached for operations and Australian divisions were interchanged between I and II ANZAC. But it was not only having the willingness to change that was



Canadian soldiers returning from the trenches during the Battle of the Somme, November 1916.

essential; divisions such as the 57th Division also needed the time, and inevitably this was often left to training periods out of the line.

The Canadian Corps' attack on Vimy on 9 April 1917, Easter Monday, as part of the Arras offensive, showed what an infantry-based army could achieve with detailed preparation and planning and the coordination of all available resources. It was a demonstration of how much Byng and his Canadians had learnt from the mud and chaos of the Somme fighting. The Vimy Ridge north of Arras was critical ground on which the German defensive line hinged. It had successfully denied a series of French attacks at bloody cost. The four Canadian divisions advanced side by side in battle for the first time under a creeping artillery barrage, assisted by specially dug communication tunnels that allowed the attacker to move close to the German front lines. Counterbattery fire silenced the German artillery, and most of the critical ground except that on which the Vimy Memorial now stands was gained in the first few hours of battle. The toll exacted was high: 3598 killed and 7004 wounded.³³ But the Canadian victory at Vimy showed that it was

possible to break in and seize heavily defended ground with platoon-based tactics assisted by engineering skills, and the skilled use of artillery in destroying the wire, providing an effective creeping barrage and counter-battery fire.

Limited gains at heavy cost, which historians today believe to be part of Haig's battle of attrition mind-set, were the reality of manoeuvring an infantry-based army dependent on fighting their way forward on foot in a geographically restricted area defended by mass armies. Both attacker and defender were able to stockpile and use materiel and technology, but by its nature the ground gave greater advantages to the defender. The tank, which was introduced for the first time on the Somme on 15 September 1916, was a major technological advance but lacked the robustness and manoeuvrability to make it a battle winner. It could not keep up with infantry over broken ground, and its lack of suspension and poor exhaust extraction meant that its crew was unfit for combat after one hour's cross-country travel. Until this problem was overcome the role of the tank was limited to infantry support.

Breaking through the trench lines of the Western Front was by necessity a battle of tactical-level small-scale manoeuvre, but because it was not one of sweeping breakthroughs this manoeuvre has not been recognised for what it was. Improved offensive tactics, particularly in the use of artillery, saw the evolution of German defensive doctrine from the fixed trench lines of the Somme to defence in depth by zones based on a chequerboard pattern of concrete bunkers or pillboxes, protected by wire obstacles often hundreds of metres in depth. These channelled the attacker into the mutually supporting crossfires of this matrix of mini-forts, behind which specially designated infantry units were held ready to counterattack.

Fighting forward in short dashes covered by the fire of the Lewis gun team was an exhausting business even without the need and the strain of taking out each German machine-gun position and bunker. Each required a platoon attack within the framework of a company attack which was in turn part of a battalion attack within the brigade plan that was part of the divisional attack, and so on through corps to army! It was the means by which infantry could take on the dug-in enemy successfully and keep going forward. It was physically demanding work that burnt up the energies of the individuals taking part, so after each bunker or trench had been taken platoons had to leapfrog through each other to keep the advance progressing. This meant that what each battalion could achieve in terms of metres of ground gained (with its four rifle companies each of four platoons) was by necessity very limited.

An infantry division of three brigades usually attacked with two brigades side by side, each having its battalions echeloned in depth so that each took a bite out of the objective the brigade had been given, fighting its way forward behind the artillery barrage to a predetermined line. At this point it paused and consolidated while the next battalion passed through and continued to fight forward. From above this would appear to be a dispersed series of ant-like columns edging forward, but this was the reality of an organised mass of men across a frontage of a kilometre or two, biting its way into a highly sophisticated defensive system that was designed to impede and kill. Thousands of men were needed to achieve hundreds of metres, not through ignorance on the part of their commanders but through the reality

that at the fighting edge of this advance, small groups of 30 or so infantrymen were fighting their way forward platoon by platoon, section by section, in small difficult bites across this front.

Artillery fire was critical in allowing the infantry to move forward. Four things were essential to any attack, and these were things that artillery had to provide. The wire obstacles protecting the German defences had to be cut to allow the infantry to get through. The infantry had to have covering fire so that the German defenders were forced to keep their heads down to the last possible moment, but equally importantly the German artillery had to be suppressed by counter-battery fire while the attack was in progress. Infantry were at their most vulnerable while they were above ground, so the planning staff had to ensure that for the critical period of the attack, during the infantry advance, every effort was made to stop the German artillery from firing. Finally, defensive fire had to be available to destroy German counterattacks while the attackers consolidated and put into a state of defence the ground they had won in the attack.

Covering fire was achieved by the evolution of the creeping barrage that became standard procedure in the British and French armies from the Somme on. This became a sophisticated mix of a moving line of exploding artillery shells, sometimes mixed with smoke shells that lifted in 25-, 50- or 100-yard leaps and moved forward as a curtain of fire and explosions ahead of the infantry who had been trained in and had practised moving forward behind this covering fire.

A limiting factor in how far an attack could go was the range of the artillery. The standard supporting field gun in British divisions was the 18-pounder. For most of the war its effective range was 6500 yards. Even if positioned as far forward as possible, this could be 1000–2000 yards behind a front line. The planning staff also had to factor in being able to effectively use artillery to defeat German counterattacks while the attacking infantry consolidated the ground they had won. Artillery had to be able to reach out and fire on the German attackers in front of the newly won positions. There was no guarantee that artillery would be able to be moved forward into new positions to provide this support, so

objectives had to be within range of existing artillery positions. If one allows 1000 yards as the minimum distance that was needed in front of the furthest advance then one can see that by subtracting from the field gun's 6500-yard planning range the 2000–3000 yards that is the combined length of the distance of the guns to the front line and the distance that the guns had still to cover after the infantrymen had reached their farthest objective, what is left is a maximum 3500-yard template within which to plan the infantry attack. Often this was in fact much less, commonly 1000–2000 yards. If one wanted to achieve more than this then the attack had to be carried out in stages so that provision could be made to get artillery forward so that it could support a further advance. Balanced against this was the sophistication of the German defences, whose series of defensive zones could cover a depth of six to ten kilometres. Taking all this into account, the scale of the problem facing the attacker on the Western Front becomes obvious. The Germans looked at the distance from which British artillery could support an attack and did everything in their defensive planning to frustrate it. The Germans provided an "onion skin" defence in layers that the attacker had to piece and work his way through, each layer being separated by belts of barbed wire covered by machine-gun fire. While he was doing this he would be subject to German artillery fire and infantry counterattacks.

Getting artillery forward through these layers was a major undertaking that required roads to be built through what was often a churned up, trackless waste blocked by the obstacles of enemy wire, trenches in depth, and the fact that

the German artillery was now bombarding the ground that they had lost. Horses had to drag the guns forward, together with the hundreds of rounds needed for each gun, as well as the timber needed to build stable platforms in the ground to prevent guns sinking into the earth each time they fired. Moving the mass of materiel needed was a major engineering and logistic undertaking that demanded staff planning and direction of the highest order. It was where corps staff proved their mettle. The Canadian Staff was a mix of British professionals and Canadian officers, some professional, some not, but the Canadians also had the benefit of experience. It was with this combination that the Canadian Corps in 1917 proved greatly superior to its two ANZAC Corps counterparts.

All of this was the reality of achieving infantry manoeuvre at foot pace. Its cost in manpower and materiel, or more evocatively "attrition," was far higher than if one could have devised a way of getting round the German defences and attacking them from the flank or rear, but the Western Front did not allow this. The Belgian coast and the Swiss frontier fixed the parameters. Manoeuvre had to be achieved within the context of a frontal attack that had the aim of breaking in and punching its way through the German lines. German defensive planning ensured that the depth of defences forced the attacker to exhaust his infantry in fighting forward and also deploy his artillery forward in stages while he was fighting through the objective, so there was no alternative but to work through the German defences in small tactical bites dictated by the range of artillery support.

Canadian soldiers enjoy a mid-day meal, July 1917.



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The evolution of counter-battery fire techniques, with the ability to locate German artillery batteries by aerial and ground spotters, and with the introduction of flash spotting and sound-ranging techniques, was a critical part of evolving Allied offensive tactics. Byng was a driving force in having these techniques introduced into the Canadian Corps in the preparation before Vimy.³⁴ This allowed the infantry to get forward and survive above ground during the critical hours of the actual attack by suppressing German defensive artillery fire.

Some historians, led by Robin Prior and Trevor Wilson in their important studies of the Western Front, see this as central to explaining Allied success on the Western Front to the exclusion of all other factors.³⁵ The Australian historian Ashley Ekins, who is of this school, has written that:

...success would come to whichever side possessed the capacity to direct massive artillery damage onto their enemy's front and provide artillery cover to enable their own infantry to advance. The crucial factor was no longer the infantry, or their strength, condition, training, morale or state of discipline. Victory now depended upon the number of guns and shells and the intensity of shelling which could be applied to the chosen area of attack.³⁶

I disagree. It is an argument similar to that advanced by contemporary air power advocates who believe that wars can be won by air power alone. In the twenty-first century "smart" shells guided by lasers from guns positioned by GPS have been developed; these can guarantee that artillery can hit a pinpoint target. That was not the case in the First World War. For all the technological advances that artillery achieved, it remained an area weapon that could accurately bracket a 250 x 250 yard area with the shells of a battery, depending on calibre, weight of shell and number of guns employed, but it could not guarantee destruction. Sustained fire over a prolonged period might eventually achieve this, but what artillery could promise was neutralisation; keeping the defenders' heads down for a specified period. It is this limitation that Prior and Wilson appear to ignore. Unquestionably, the war on the Western Front was a war of materiel in which artillery was of central importance. Infantry could not succeed without artillery.

"Artillery destroys while infantry occupies" is the catch cry that emerges from the Western Front, but for infantry to occupy still demanded the skill of fighting through the objective from the point once artillery support had to lift. For, despite the increased accuracy of the guns, the introduction of the 106 fuse that allowed the 18-pounders to be more effective in cutting wire, and the greater percentage of heavy artillery that destroyed trenches and rendered German defenders in pillboxes concussed and senseless from the pounding, total destruction was impossible.

The act of occupation is not simply standing up and walking forward, as too many historians suggest. The revolution on the Western Front was one of the growing sophistication of the all arms team built around the growing skills of infantry in attack. Allied skills in massing and using artillery were a critical feature in their offensive success, but if this had not been matched by the evolution of infantry small-group tactics at section and platoon level then, once the artillery fire lifted, the infantry would have been stopped by machine guns and would have died in their extended lines as they did on the Somme on 1 July 1916.

Victory in battle depended on maintaining the balance between the artillery and its ability to "direct massive artillery damage" onto the enemy's position, suppressing enemy artillery fire, while providing artillery cover to enable infantry to advance, and the ability of trained infantry who because of their "strength, condition, training, morale or state of discipline" had the skills to fight their way forward from bunker to bunker. Prior and Wilson give examples of this infantry skill in their studies without crediting its importance, as in this textbook-perfect example of infantry fire and movement on 26 September 1917 in the Battle of Polygon Wood by the 5th Australian Division.

Resistance from "Pill Boxes" and Strong Points was encountered almost immediately, but in no case was the advance checked. In one case a strong point was encountered and machine gun fire opened on the attackers. Immediately a CSM [company sergeant major] and about half a dozen men worked round the flanks while a Lewis Gun team opened direct fire on the position drawing the enemy fire off the enveloping parties who were then easily able to work round, rush the position with bombs and the bayonet, and

accounted for the occupants and captured the gun.³⁷

Certainly the attacking infantry saw artillery as the key to success. It opened the way forward onto their objectives, often with minimum infantry casualties. They also knew its destructive effects when they attempted to consolidate and hold the ground they had won. The battle began in earnest once the captured position had to be defended against counterattacks. It was now that the mass of infantry that had been needed to capture the position became a liability, when the ground they occupied became the target for German artillery fire. This was something flesh could not withstand unless it was dug in with overhead protection, and this could be achieved only with time and effort.

After the Somme, thinking commanders saw the need to replace vulnerable flesh with defensive firepower in order to hold ground won and repel counterattacks. Byng factored this into his planning for Vimy; his successor Currie did the same for Hill 70 and the fighting for Lens. They were not alone, as we shall see in the next chapter when we examine the performance of Russell and Monash at Messines. Russell, the New Zealand divisional commander, wanted to halve the strength of his infantry forward once he had captured Messines because he recognised that too many men forward simply provided better targets for German artillery fire. Godley's II ANZAC Corps, wedded to the need to hold the front line in strength, which it identified in manpower terms alone, would not allow this, but Russell still attempted to minimise casualties by evacuating the centre of the town of Messines and holding it with an outer ring of machine-gun and artillery posts that would bring effective fire on any attack.

As this example shows there was limited flexibility available to a divisional commander in his planning. Much depended on the ability of the corps commander to assess the best use of the divisions that he had available, listen to his divisional commanders' views as to how they could best achieve their respective objectives, and factor this into his planning. The corps commander then had to propose, convince and if necessary argue with Army Headquarters to see that this was put into effect. Byng did this for the Canadians at Vimy. One can read of the care

taken for this attack in the impressive studies of Canadian achievement by Brown, Hyatt and Rawling.³⁸ The careful, previously "unheard of training" at every level from platoon through to division included a full-scale replica of the battle area over which every battalion rehearsed and rehearsed until every man knew his job in the coming attack, and detailed, specially produced maps that were issued down to section-level within platoons so that men knew where they were to go and pass back information once they got there.

Critical to Canadian success was the artillery plan; the detailed destructive shoot to destroy the wire and suppress defences in the two weeks prior to the attack, the concentration of heavy artillery giving weight to the counter-battery fire on German gun positions, and finally, despite the evidence, a fire plan immediately before the attack to provide tactical surprise for the infantry when they actually went over the top. Careful engineer and logistic preparations matched this, particularly the development of underground communication tunnels to allow a relatively safe passage of assembling troops in the attack zone.

As Brown has argued, it was a "not glamorous but effective" set-piece attack, which became the model for future Canadian operations on the Western Front. This in turn became a model for British armies through the dissemination of the lessons learnt by Haig's staff. It is important to acknowledge the lead given by Haig's armies in spreading the word and seeing these techniques implemented. Plumer's Second Army was the pacesetter, and the directives and conference notes signed by Plumer's MGGS, Major-General Charles "Tim" Harington, are a model of their kind. The Second Army preparations before Messines in May–June 1917 and then in the build-up to Passchendaele in August–September 1917 show how important an army headquarters was in setting effective artillery plans to meet infantry requirements. These included "[breaking] down obstacles which are impassable for Infantry, but in doing so to create as few new obstacles in the way of shell craters as possible," providing a protective barrage to cover the infantry advance, while neutralising "all known hostile battery positions," before providing the consolidating on the objective with defensive fire "which can be put down when the enemy counter attacks."³⁹

41-year-old Arthur Currie (centre, pointing) was recognised for his ability as a divisional commander with a knighthood, promotion to Lieutenant-General, and command of the Canadian Corps, making him the first non-Regular citizen soldier to command a corps in Haig's armies.

Hidden within the constraints of the set-piece attack was the vital flexibility allowed by the ability of infantry to effectively manoeuvre at platoon level. In their after action reports on Vimy the Canadian divisional commanders were unanimous on the importance of the new platoon organisation and tactics. Major-General D. Watson, commanding the 4th Canadian Division, wrote of its "undoubted success":

The present platoon forms an ideal unit with which to establish strong points, to form an outpost picquet with its sentry group, to attack a troublesome hostile strong point met with during the advance, or to hold a section of hostile trench ... To sum up, there seems little doubt that the intelligent handling of these self-contained platoons contributed largely to the success of the whole operation. The machinery of the Battalion in the attack worked smoothly, and minor opposition which might well have delayed the advance was usually promptly dealt with by the Platoon Commander or Company Commander on the spot with the various weapons at his disposal.⁴⁰

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In the 1st Canadian Division, Currie, who was a principal in supporting the organisational changes, wrote:

All ranks in this Division now have every confidence in their ability to overcome hostile Machine Guns by the combined use of Lewis Guns Rifle Grenades, which either put the gun out of action or permit the Bombers or riflemen to get close enough to kill or capture the crew.⁴¹

The two ANZAC Corps had suffered the same learning experience on the Somme, but the lessons learnt by the Canadians were not as evident in Birdwood's I ANZAC Corps in the operations it conducted in early 1917. The Australians failed before Bullecourt in the two attacks on 11 April and 3 May 1917. Part of this was undoubtedly due to the determination of the Fifth Army Commander General Sir Hubert Gough to push on attacks against what he

thought was a retreating enemy, despite growing intelligence to the contrary. Few subordinates in Fifth Army would oppose Gough's raging zeal to press on at all costs, and Lieutenant-General Sir William Birdwood was certainly not one of them, and so his Australians were committed pell-mell to hastily arranged attacks against strong defensive positions with inevitable results.

The operations on the Somme demonstrated Australian staff inexperience, and this was still apparent in early 1917. Brigadier-General C. Brudenell White, Birdwood's Chief of Staff at Headquarters I ANZAC, demonstrated his superb administrative skills in the planning of the Gallipoli evacuation, but the Somme and Bullecourt showed that this skill was not initially matched by a similar tactical grasp on the Western Front. To be fair to Birdwood's Australians they did not have the opportunities and time in early 1917 for the training and assessment that the

Canadians had in the build-up for Vimy, but Birdwood was not of Byng's calibre in searching for tactical and organisational solutions to the problems raised by the Somme.

Despite the loss of some 23,000 men on the Somme, the Australians produced more of the same before Bullecourt. Brave, bold, but stereotyped with heavy losses; 4th Brigade in the 4th Australian Division was effectively destroyed, losing 2339 out of the 3000 men who took part in the attack on 11 April 1917. Despite the bravery of 6th Brigade on 3 May, the skills they showed were not evident in 5th Brigade, and coordination and cooperation among the Australian formations was lessened by tension and friction between commanders who lacked trust in each other. In 14 days of fighting I ANZAC suffered 292 officers and 7190 other ranks out of some 14,000 British casualties.⁴²

The Australians blamed Gough, British flanking formations and the supporting tanks, and while the first is deserving of blame the others are more of an excuse to hide Australian deficiencies. Poor staff work and planning was evident within I ANZAC. This led to the failure of corps artillery to support the attack at critical stages on 11 April. Haste was certainly a factor, but inadequate artillery planning and support was again a key element on 3 May.⁴³ This was matched by command deficiencies at divisional and brigade level. As one recent study concludes, both the British and Australian formations taking part were "riven by factional strife while their field commanders wrestled with new technology that they were unable to handle."⁴⁴ I ANZAC did not have the opportunity to change battalion and platoon organisations to effect fire and movement within the platoon, and this tactical ineptness showed in both operations.

Tactically, in early 1917 Birdwood's I ANZAC was inferior to Byng's Canadian Corps and even possibly to Godley's II ANZAC Corps. There was no disputing the outstanding bravery of the Australian soldier, but what the Australian experience at Bullecourt showed was that the initiative and calibre of the individual soldier counted for little unless it was matched by effective command and staff skills, which I ANZAC still lacked.

In contrast, Godley's II ANZAC Corps had the opportunity and the time to assess both the lessons of the Somme and the success of the Canadians at Vimy in the preparation for the attack on 7 June 1917 at Messines. This was part of Plumer's Second Army's attack on the critical ridge holding the shoulder of the area planned for Haig's Flanders offensive. Both the now-experienced New Zealand Division commanded by the New Zealand citizen soldier Major-General Sir Andrew Russell, and the newly arrived 3rd Australian Division under Major-General John Monash, had adopted the new platoon organisations and benefited from having time to practise and rehearse these changes, an opportunity that Birdwood's I ANZAC Corps did not have before Bullecourt. We shall examine this in some detail in the next chapter.

While Messines was an outstanding success there was evidence, both during the preparation and planning and certainly in the commitment of the 4th Australian Division to exploiting the initial success and capturing the Oostaverne Line that lay beyond the ridge, that the staff work of Godley's II ANZAC was suspect. Corps coordination broke down completely, and although the ground was gained both the 3rd and 4th Australian divisions came under effective fire from their own artillery in the mistaken belief that they were part of a German counterattack.

Currie succeeded Byng as Canadian Corps Commander on 6 June 1917, at the age of 41 becoming the first non-Regular officer to command a corps in the BEF.⁴⁵ He first demonstrated his skills at this level in the planning and conduct of the Canadian Corps' attack on Lens. The purpose of the attack was to draw German attention from the next phase of the British offensive in Flanders. It was also to draw the German forces into a meat-grinder battle, destroying the combat effectiveness of as many of their divisions as possible to prevent them being sent north as reinforcements to Flanders. Currie's strength of character and determination to do what was best for his corps was evident when, unhappy with the directive and the detailed instructions given to him by General Sir H.S. Horne's First Army, he convinced his army commander that both the objective and the method had to be changed.⁴⁶ Currie was a man who had to go forward and

see for himself, and from a careful study of the ground he demonstrated that the key feature dominating Lens was Hill 70, which had been placed outside the Canadian boundary in the First Army directive. Seizing this would leave the Germans no option but to counterattack it in force. Unlike Birdwood before Bullecourt, Currie refused to be rushed and repeatedly postponed the attack until weather conditions were perfect. The critical ground was seized and, as Currie had anticipated, the Germans counterattacked furiously over three days, mounting 21 separate attacks, each of which was destroyed by massed artillery fire backed up by machine guns and rifles.

Canadian losses were heavy – 9198 for the period 15–25 August against estimated German losses of 25,000-30,000.⁴⁷ All the skills that had marked Canadian success at Vimy were repeated at Lens. A successful attack was mounted under a carefully planned creeping barrage while German artillery was suppressed with counter-battery fire, allowing infantry to fight their way onto the objective with fire and movement.

Both ANZAC corps had time to prepare and rehearse before being committed to Haig's Passchendaele offensive. Working as part of Plumer's Second Army, the Australian divisions achieved a series of successes in the battles of Menin Road by 1st and 2nd Divisions on 20 September; 4th and 5th Divisions at Polygon Wood on 26 September; both I and II ANZAC corps involving 1st, 2nd and 3rd Divisions as well as the New Zealanders on 4 October, the only time both corps were used together side by side on the Western Front. Despite the image we have of Passchendaele, it saw the I and II ANZAC corps employ in battle a level of command and tactical skills equal to the Canadian Corps. With the men exhausted after Bullecourt, the period between May and September was used to good effect in building up the tactical efficiency of the AIF. It was not the quality of the soldiers alone that made the difference; rather it was how they were moulded into an efficient fighting team with hard training, matched by sound administration and leadership.

This was followed by the failure of Godley's II ANZAC in front of Passchendaele on 12 October 1917, with heavy losses to Monash's 3rd Division

and the New Zealanders. Despite the skill of both divisions, lack of corps coordination on the part of Godley's staff saw both Russell's and Monash's divisions attack and fail against uncut belts of German wire. Despite Godley's success at Messines, his Headquarters II did not show the same growth in staff procedures and planning that was evident in Birdwood's I ANZAC after Bullecourt, with the coordination problems evident in Godley's Headquarters during Messines repeated before Passchendaele.

Inadequate artillery preparation and planning at Headquarters II ANZAC led to infantry attacking uncut wire. The creeping barrages were equally ineffective because of insufficient coordination and drive by Corps Headquarters to see that the guns, material for platforms, and ammunition got forward. Despite the skills of both the New Zealand and Australian infantry, they could not reach the bunkers and were shot down in the wire. Russell's assessment was that had the wire been cut, even with limited supporting fire the attack would have been successful. As it was, the failure of 12 October confirmed that it was the all arms cooperation of artillery and infantry working together with engineer support that allowed attacks to succeed. Infantry or artillery alone was not enough.

It was now that a reluctant Currie was ordered to attack with his Canadian Corps where Godley's II ANZAC had failed. Currie had discussed with Byng the involvement of his Canadians in a surprise attack with massed tanks that would later be carried out at Cambrai. This was far more attractive than the mud of Passchendaele.

Every Canadian hated to go to Passchendaele...I carried my protest to the extreme limit...which I believe would have resulted in my being sent home had I been other than the Canadian Corps Commander. I pointed out what the casualties were bound to be, and was ordered to go and make the attack.⁴⁸

Having been given the job, Currie got on with it. Before Passchendaele, he did everything that Godley had not: he insisted on time for planning and preparation, coordinated the engineer effort, got his guns forward, and committed his infantry to a series of attacks that saw them seize Passchendaele, all at heavy loss.

At Passchendaele Currie found that of the 360 field guns only 220 were working but not all were in position. Key to the success was his demand that damaged guns be replaced and that the guns allocated, many of which were stuck in the mud, had to be got forward so they could contribute to the fire plan for the attack.⁴⁹ Currie and his staff went forward into the quagmire to see the conditions for themselves.⁵⁰ His planning took into account the conditions that both artillery and infantry would face fighting in such swampy desolation against a determined enemy organised in depth. It was important that the artillery creeping barrage did not run away from the infantry squelching slowly forward through the mire. In four bites on 26 October, 30 October, 6 November and 10 November, the Canadians fought their way forward against stiff resistance until they finally captured the pulverised ridge on which the village of Passchendaele once stood. The gain was a small, dangerous salient poking like a finger into the German defensive line, subject to fire from all sides. It was accomplished by Currie's corps in two weeks at a cost of 15,643 Canadian casualties. Its seizure marked the end of the Passchendaele offensive.

As the map opposite shows, Currie mounted a series of carefully coordinated attacks in impossible conditions and succeeded where II ANZAC and other corps had failed.⁵¹ Given the conditions Currie faced, it is hard to see how this wasteland of mud could have been more cheaply gained. As we know, Currie made it clear to Haig that he did not want the task, and insisted on time and effort that Haig was initially reluctant to give. Similar demands by a British corps commander may have been overruled, but by now Currie had a professional formation, valued his men, and knew what was necessary to succeed. Haig had been instrumental in appointing Currie corps commander and would listen to reasoned argument, but, while it is clear that Currie admired Haig as a commander, the relationship between the two men was always a prickly one.

This tension underlay relations between the Canadian Corps and GHQ throughout 1917. After Currie had complained about the supply of replacement artillery before Lens in July 1917, Haig noted that "the Canadians always open their mouths very wide!"⁵² Currie, the citizen soldier, showed a willingness to speak out in the interests of his corps that was never contemplated by

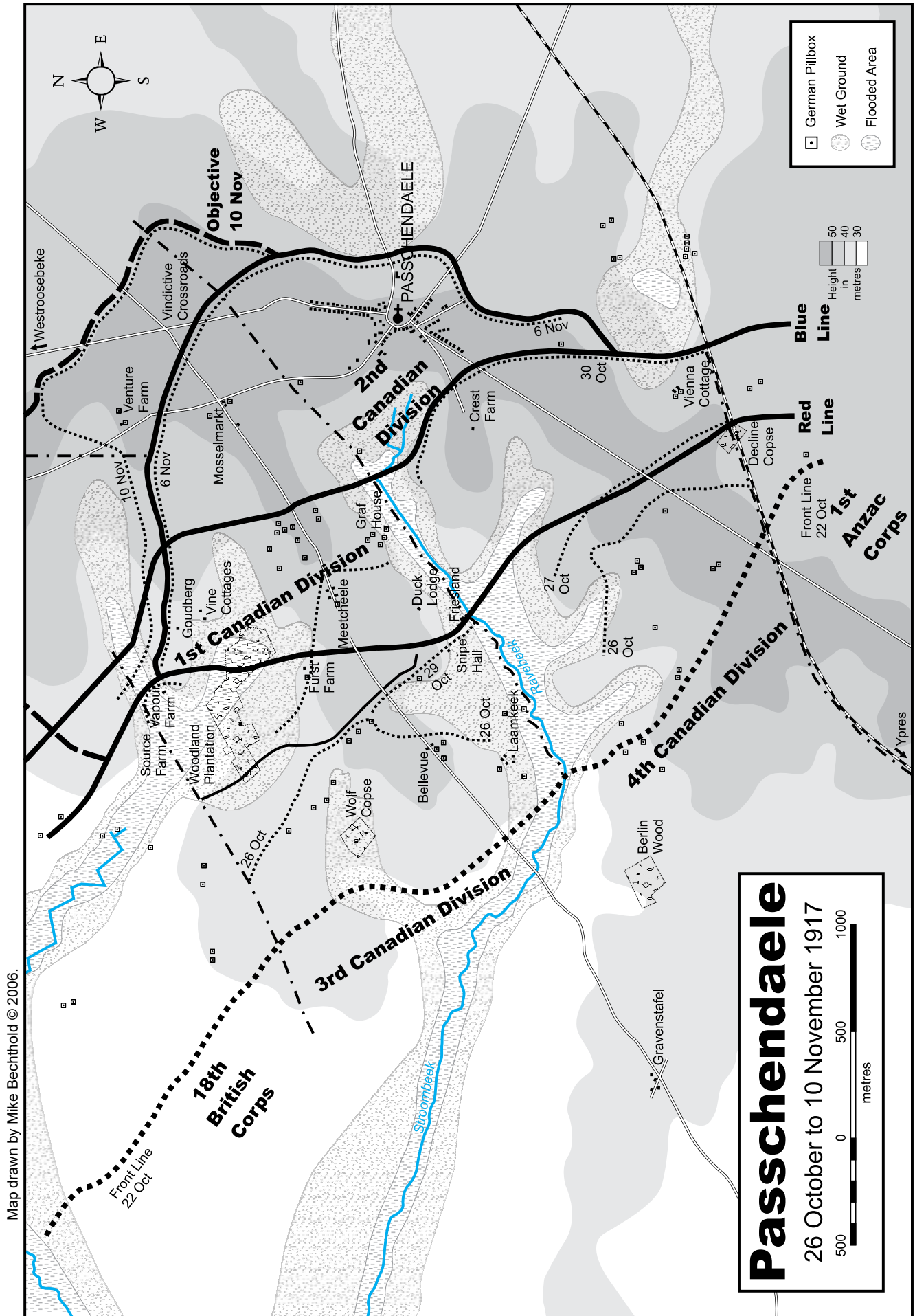
either Birdwood or Godley, as British Regular soldiers commanding the two ANZAC corps. While the tension between Haig and Currie was more than balanced by the tactical skill the Canadians displayed under Currie's command, the strain between the two men would surface again during the German offensive in March 1918.⁵³

The tactics employed by the Canadian Corps mirrored those used throughout the British armies. The principal difference was the advantage of homogeneity, where the four divisions of the corps benefited from corps doctrine. Central to this was the figure of Currie himself. He constantly assessed the need for change, drawing on both the recommendations issued by Haig's General Headquarters and internally from his own subordinate formations. He was a commander who had to see for himself, who understood the conditions his soldiers endured, abhorred casualties, knew that exhausted men cannot fight and that battalions had to be kept up to strength with trained reinforcements if they were to meet the demands placed upon them by offensive action on the Western Front.

Unlike other corps commanders, except those of the two ANZAC corps, he was in a position to direct and oversee organisational and tactical changes in his four divisions over an extended period. British corps commanders did not have this ability to influence the organisation and training of divisions within their corps because there was no permanent allocation of divisions. Doctrinal changes and tactical evolution depended on the ability and drive of each divisional commander.

Currie's Canadians returned to the Vimy sector after Passchendaele. Despite the demands imposed by the anticipated German offensive, which it was predicted would follow the collapse of Russian resistance, Currie ensured that each of his divisions in rotation had one month out of the line in reserve training and resting, with the resolve that "every effort should be made to bring the Corps to the highest possible fighting efficiency."⁵⁴

Manpower shortages led Haig to institute what he believed would be the temporary reduction of the size of infantry divisions from 12 to nine battalions throughout the British armies.



By January 1918 the Canadian Corps faced a critical reinforcement situation. There were simply not enough men in the system to keep existing units up to strength. Reinforcements came from wounded and convalescent soldiers returning to their units; in many cases men who should have been returned to Canada.

In the absence of Infantry Drafts from Canada, training has been reduced to a science, with Physical and Remedial training a very important factor. The main sources of supply for reinforcements are the convalescent Hospitals, and it has only been possible to maintain supplies for the Training Reserve Battalions by having a good system of remedial treatment at the Hospitals and physical training at the Command Depots in order that returned Expeditionary Force men might become category "A-1" as soon as possible, and therefore available as reinforcements.⁵⁵

Currie insisted on retaining the 12-battalion organisation within his corps. He also opposed the suggested restructuring and expansion of his corps into two Canadian corps, despite the opportunities this offered for his own advancement to command a Canadian army.⁵⁶ The bitter fighting of 1917 had reinforced his belief that infantry battalions had to be kept at full strength if they were to be effective, and

that "sending an under-strength unit into battle almost always resulted in greater losses than if that unit fought under the same conditions but at full strength."⁵⁷

Currie conducted a skilful political battle to achieve the retention of the existing divisional structure. He also achieved the break-up of the 5th Canadian Division, which had been retained in England, and used it to increase each battalion establishment with an additional 100 infantrymen as well as providing a much-needed pool of trained reinforcements.

The manpower situation improved in February 1918 with the arrival of the first drafts of conscripts under the Canadian Military Service Act. These reinforcements had had little training in Canada but were of good material. This and the break-up of the 5th Canadian Division meant demands from the front "can be met by fully trained men."⁵⁸ At the beginning of March 1918 each of the Canadian battalions was between 900 and 1000 strong and there was a small surplus of trained reinforcements in the Canadian Corps Reinforcement Camp, in contrast to the deficiency that had existed in the first two months of the year.⁵⁹

The sodden misery of victory: the Canadian front line at Passchendaele, November 1917.



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Currie was also conscious that higher headquarters, including his own, too often saw infantry as a readily available labour force that was too easily tasked to do the myriad labouring tasks required in a combat zone instead of being given the opportunity to rest and retrain. He restructured the engineer and machine-gun organisation in his corps to lessen the demands on his infantry in battle. The three field companies of engineers that had previously supported each division were expanded to an Engineer Brigade of three battalions and a Bridging Section, greatly increasing the engineering capacity, which until now had been dependent on tasking infantry as a labour force.⁶⁰ In line with changes throughout the British armies he reorganised machine-gun companies into machine-gun battalions, and later increased the number of machine guns to 96 guns per battalion.⁶¹

In addition the Canadian Corps had the benefit of the 1st and 2nd Canadian Motor Machine Gun Brigades; each brigade was essentially a motorised machine-gun battalion consisting of five batteries of eight Vickers machine guns mounted in Canadian-manufactured Otter armoured cars. The concept was the brainchild of the French-born Brigadier-General Raymond Brutinel, who was Currie's Commander Canadian Machine Gun Corps. As the commander of "Brutinel's Brigade" he would command a mobile force consisting of the two Motor Machine Gun Brigades, the Canadian Light Horse and the Canadian Corps Cyclist Battalion, together with trench mortars and artillery. This mobile force, unique to the Canadian Corps, was used with skill and boldness during the 1918 campaign. The 1st Canadian Motor Machine Gun Brigade played a critical role in covering the withdrawal of the Fifth Army during the German offensive of March 1918, and "Brutinel's Brigade" had an equally important role in the Canadian offensive operations from 8 August 1918.⁶²

In January 1918 training in Currie's Canadian divisions was built around a sequence of three weeks' training that drew its lessons from the Cambrai offensive. Every man in the platoon was expected to be an expert in all infantry weapons, and the platoon organisation was adjusted to allow for the addition of a second Lewis gun to each platoon, giving each two Lewis gun sections and two rifle sections.

Training progressed from platoon through company to battalion level. "It is most important that these schemes should take the form of open or semi-open warfare wherein the unit advances by the aid of its own firepower and without the help of an artillery barrage. Counter-attack schemes will also be practiced."⁶³ Emphasis was placed on instructing platoon commanders in the use of ground, employment of all arms under their command and efficient reporting. Tactical Exercises Without Troops (TEWT) or "Allez-Allez" schemes were conducted to sharpen the young officers' response to the types of situations they might encounter in a fast-moving mobile battle. Making best use of technological improvements was also practised, such as the use of Stokes mortars to provide smoke in company and platoon attacks. "Strong points may be barraged with smoke bombs to give cover for a Lewis Gun team to work around to a flank and many other similar ideas can be worked out."⁶⁴

Battalions and brigades practised infantry-tank cooperation and working with contact aeroplanes. The training in the Canadian Corps was innovative and impressive, but it also mirrored training that was being conducted to the same or a lesser degree throughout the British armies depending on the drive and initiative of individual divisional commanders. However, the Canadian Corps evolved its own individual approach: "a definite Corps tactical doctrine [which] was necessary by reason of the different organisation, the greater strength, and the particular methods which characterised the Canadian Corps."⁶⁵

This bore fruit with the start of the expected German offensive on 21 March 1918. The Russian collapse in October 1917 had allowed the transfer of German resources to the Western Front, and General Ludendorff planned a major offensive to end the war before the United States could mobilise its manpower resources. Apart from the Battle of Verdun the Germans had been on the defensive on the Western Front since 1915, and the French and British had been the attackers, the latter taking the lead in this from June 1917. Now the roles were reversed. Ludendorff had grouped and trained an elite force of *Stosstruppen*, or storm-troopers, in platoon and section infiltration tactics tasked with penetrating the Allied defensive lines under a surprise artillery bombardment. This was similar

to British and French offensive doctrine, and Ludendorff's objectives mirrored Haig's offensive ambitions.

This spring offensive was anticipated and prepared for, and the British armies copied German defensive doctrine and adopted a three-zone defence-in-depth system. The difference was that the Germans had evolved this in practice, while the British armies, on the defensive for the first time in two and a half years, adopted the form but, as its execution showed, not the substance. On 21 March 1918 the Germans achieved both tactical surprise and a deep penetration at the junction of the Third and Fifth British Armies in the Arras-St. Quentin sector, particularly on the Fifth Army front.

The pressure on the Fifth and Third Army fronts saw the Canadian Corps extend its front, and the detachment on 23 March of the 1st Canadian Motor Machine Gun Brigade to support the withdrawal of the Fifth Army. With its 40 motorised machine guns it fought a brilliant rearguard action over 200 square miles of territory for some 19 days, with the loss of some 75 percent of its trench strength.⁶⁶

As the crisis developed all four Canadian divisions were removed from Currie's command and placed under the command of two different armies, and three different corps. "This disposition of the Canadian troops was not satisfactory, and, on receipt of the orders ... I made strong representation to First Army, and offered suggestions which to my mind would reconcile my claims (from the standpoint of Canadian policy) with the tactical and administrative requirements of the moment."⁶⁷

Currie's determination to restore the integrity of his corps was misinterpreted by Horne, the First Army Commander, and by Haig. Both were highly critical of Currie's action, but Currie was unrepentant. He distrusted the reduced British divisional organisation of nine battalions, believing it was too weak in infantry, and knew that his Canadian divisions fought better when grouped under his command. Currie ensured that political pressure was applied through Sir Edward Kemp, the Minister of Overseas Military Forces of Canada, in London to force the return. It was this that led Haig to regroup the Canadian divisions under Currie's command, and remark

angrily and inaccurately in his diary that Currie's actions kept the Canadians out of battle.⁶⁸

By mid-April 1918 Currie had three Canadian divisions back under his command in the Vimy sector. On 7 May the Canadian Corps was withdrawn into reserve. Currie immediately finalised changes to his artillery, engineers, machine guns and signal organisations and commenced training in open warfare offensive operations.

Many tactical schemes were carried out during May, June and July, each emphasizing some definite lesson, more particularly how to overpower resistance in an area defended by machine guns in depth, using covering fire and smoke grenades, how Batteries of Machine Guns should co-operate in assisting Infantry to get forward, and how Sections of Field Artillery could best carry out an advance in close support of attacking Infantry.⁶⁹

The Canadians were at the cutting edge of tactical doctrinal development on the Western Front. Currie was the first to admit that Canadian skills were drawn both from their own experience and from the dissemination of lessons distributed by Haig's GHQ. "These documents were carefully studied and, to a large extent, inspired our training."⁷⁰ They provided similar inspiration to other thinking commanders. Monash took those lessons with him when he assumed command of the Australian Corps in May 1918 and demonstrated them in fighting his corps at Hamel, and in the battles of the Hundred Days offensive from 8 August. At last the Australian divisions had a man in command who knew the value of planning and preparation. Both the Australian and Canadian corps demonstrated the value of having homogeneous corps consisting of fixed divisions, and gained strength from that cohesiveness. It was something that Australian commanders had always recognised, but while I ANZAC was structured with four Australian divisions in August 1917 it was not until the formation of the Australian Corps at the beginning of 1918 that all five Australian divisions were grouped together.⁷¹

The Canadian Corps remained at the cutting edge throughout the battles of the Hundred Days, starting with the Battle of Amiens on 8 August 1918. At Amiens the Canadians advanced 14 miles at the cost of 9074 men.⁷² Together with



French and Canadian troops mingle outside a Field Ambulance Dressing Station during the Battle of Amiens, August 1918.

the French Army on the right flank, Rawlinson's Fourth Army penetrated seven miles and took 30,000 prisoners. It was, as Michael Howard concluded, "the first outright and irreversible defeat that the Germans had suffered in four years of fighting."⁷³ It was Currie who told Haig the battle was running out of steam against increasingly stiffening German resistance and that it needed to be either shut down or moved somewhere else.

I further suggested that, rather than expose the Canadian Corps to losses without adequate results, it should be withdrawn from this front, rested for a few days, and used to make another surprise attack in the direction of Bapaume.⁷⁴

It was Currie's recommendations, backed by Rawlinson, the Fourth Army Commander, that prompted Haig to widen the offensive. This produced a series of hammer blows that saw the British armies fight at what we would today term the operational level for the first time.⁷⁵ The successful attacks by the Third and Fourth Armies between 8 and 11 August and 21 and 23 August convinced Haig that the Germans were on the ropes. It was time for an all-out

offensive, as he put it in his exhortation to his Army commanders on 22 August. "To turn the present situation into account the most resolute offensive is everywhere desirable. Risks which a month ago would have been criminal to incur, ought now to be incurred as a duty."⁷⁶

This kept the German defenders at full stretch and off balance. The Canadian Corps played a full part in these attacks from August until the Armistice. On 19/20 August the Canadian Corps was transferred north to Horne's First Army. It was in familiar territory, facing the outer works of the Hindenburg Line at its most critical spot, the Wotan-IStellung or Drocourt-Queant (D-Q) position that was a critical hinge. This was one of the most strongly defended positions on the front in country that was ideal for defence. Currie had been assessing how to attack it in July 1918 and now put his plan into effect. From 26 to 28 August the 2nd and 3rd Canadian divisions and the 51st Highland Division under command of the Canadian Corps fought their way forward with heavy casualties to the D-Q position. On 2 September the 1st and 4th Canadian divisions and the 4th British Division under Currie's

control attacked this and broke through at a cost of 5662 casualties. This was “one of the most stunning accomplishments of the Corps’ triumphant Hundred Days,”⁷⁷ but at the price of the “near annihilation for the ten battalions that bore the brunt of the attack.”⁷⁸ Tough battles cost lives, and Currie was both mindful of the cost and prepared to fight his divisions to win — in 1918 there was no other easy way.⁷⁹ Harris, in his study of the Hundred Days offensive, points out that Currie almost became de facto army commander in his conduct of the offensive within the First Army. This continued what seems to have been the practice at Vimy where, as Harris suggests, Horne, the Army Commander, seems to have acquired the habit of giving all substantial offensive tasks to the Canadian Corps and leaving both planning and execution very largely to the corps commander and his staff. This was the case during the Battle of the Scarpe, which is the name by which Currie’s advance and taking of the D-Q line is known.⁸⁰

With this critical hinge taken, the Germans withdrew back behind the Canal du Nord. This was stormed on 27 September as part of a coordinated offensive by the First, Third and Fourth Armies. Once again without a preliminary bombardment on a constricted front, caused by the impassable nature of the canal for the northern half of the Canadian sector, Currie’s Canadians broke in and then fanned out, capturing Bourlon Wood and pushing forward with heavy fighting towards Cambrai. Currie pushed his tired troops and drew in critical German reserves to defend the “last organised system of defences” on the Canadian front. Cambrai fell on 9 October and the corps paused to regroup on the Canal de la Sensée on 12 October.

During the battle of Arras-Cambrai the Canadians had defeated 31 German divisions reinforced by “numerous Marksmen Machine Gun Companies” on ground that had been specially prepared for defence over 18 months. It was a stunning achievement at heavy cost: Canadian casualties totalled 1544 officers and 29,262 other ranks between 22 August and 11 October 1918.⁸¹ The Canadians continued to push forward, and despite growing logistic difficulties fought their way across the Canal l’Escaut. They cleared Valenciennes on 2 November and captured Mons in the early morning of 11 November 1918; the day the Armistice went into effect.

The offensive operations of the Canadian Corps showed its capabilities at every level. It was involved in sustained heavy fighting to a greater degree than any other British corps. It demonstrated a flexibility of leadership and command that took advantage of any weakness by a skilled if weakened enemy fighting stubbornly to hold successive positions. It took in turn some of the strongest positions on the Western Front. Between 8 August and 11 November 1918 Canadian Corps captured 31,537 prisoners, 635 guns, 2842 machine guns and 336 trench mortars. Between 8 August and 11 October it engaged and defeated 47 German divisions, “that is nearly a quarter of total German forces on the Western Front.”⁸² The only comparable performance on the Western Front was by Monash’s Australian Corps, who under his tight and detailed direction also evolved a corps doctrine and whose battles were launched with meticulous attention to detail. This will be examined in a later chapter. Currie has never received the accolades accorded Monash, yet I see this Canadian citizen soldier as the outstanding corps commander on the Western Front and, as I will argue, superior to Monash. Canada ignored his achievements, and a vengeful Sam Hughes slandered and damned him for “needlessly sacrificing the lives of Canadian soldiers.”⁸³ Today, outside of Canada, he is largely unknown and remains undeservedly in Monash’s shadow.

Notes

1. Quoted in Stephen Harris, *Canadian Brass: The Making of a Professional Army, 1860-1939* (Toronto: University of Toronto Press, 1988), p.121.
2. *Ibid.*, p.98.
3. *Ibid.*
4. Jeffrey A. Keshen, *Propaganda and Censorship during Canada’s Great War* (Edmonton: University of Alberta Press, 1996), p.215.
5. C.E.W. Bean, (ed.), *The Official History of Australia in the War of 1914-1918*, 12 vols.
6. Robin Hyde, *Passport to Hell: The Story of James Douglas Stark, Bomber, Fifth Reinforcement, New Zealand Expeditionary Forces*.
7. A.M.J. Hyatt, *General Sir Arthur Currie: A Military Biography* (Toronto: University of Toronto Press, 1987), pp.35-43; Bill Rawling, *Surviving Trench Warfare: Technology and the Canadian Corps, 1914-1918* (Toronto: University of Toronto Press, 1992), pp.29-36; Major A.F. Becke, *History of the Great War, Order of Battle: Part 4, The Army Council, G.H.Q.s, Armies and*

- Corps, 1914-1918*, p.163.
8. Desmond Morton and J.L. Granatstein, *Marching to Armageddon: Canadians and the Great War 1914-1919*, (Toronto: Lester & Orpen Dennys, 1989), p.39.
 9. *Ibid.*, p.107.
 10. C.E.W. Bean, *The AIF in France 1916*, vol. III (St. Lucia, Queensland: University of Queensland Press, 1982), p.45.
 11. *Ibid.*, p.244.
 12. "Trench Raids. Based upon raids done by Canadian Corps." Archives New Zealand A[NZ] WA 250/34.
 13. Report re 1st Canadian Divisional Field Punishment Station, Westhof Farm, 31 March 1916, Australian War Memorial [AWM] 4 783/2, quoted in Pugsley, *On the Fringe of Hell*, p.93.
 14. Hyatt, *General Sir Arthur Currie*, p.90.
 15. Morton and Granatstein, *Marching to Armageddon*, p.107.
 16. In the dominions the implication of the change from eight companies to four companies was still being debated among the Territorial Force into 1915; see for example *The Four Company Battalion in Battle*, Special District Order No. 5a/1915 by Lieutenant-Colonel J.E. Hume, Commanding Auckland Military District, Auckland 1st July 1915.
 17. Gary Sheffield, "British High Command in the First World War: An Overview," in Gary Sheffield and Geoffrey Till (eds.), *The Challenges of High Command: The British Experience* (New York: Palgrave Macmillan, 2003), pp.15-25.
 18. Rawling, *Surviving Trench Warfare*.
 19. Hyatt, *General Sir Arthur Currie*, pp.54-57.
 20. Morton and Granatstein, *Marching to Armageddon*, p.112; Jeffrey Williams, *Byng of Vimy: General and Governor General* (London: L. Cooper in association with Secker & Warburg, 1983), pp.70-115.
 21. Canadian Corps G530, S109/1 dated 13 May 1917, Battalion Organization (Army and Corps Scheme) Library and Archives Canada [LAC] RG 9, III, C1, Vol. 3864, Folder 99, File 3.
 22. *Ibid.*
 23. Hyatt, *General Sir Arthur Currie*, pp.63-67; "Translation of a Note by the French General Headquarters of the Armies of the East," dated 11 November 1915, LAC RG 9, III, C1, Vol. 3867, Folder 107, File 6; "Notes on Exercise carried out by 4th French Army to demonstrate the New Training of Infantry Units," Canadian Corps G.343 dated 27 November 1916, LAC RG 9, III, C1, Vol. 3846, Folder 99, File 4; "Notes on French Attacks, North-East of Verdun in October and December 1916," Major-General A.W. Currie, 1st Canadian Division dated 23 January 1917, LAC RG 9, III, C1, Vol. 3871, Folder 115, File 8; "Notes on a Visit of a Party of British Officers to Verdun, January 5th-8th, 1917," LAC RG 9, III, C1, Vol. 3873; Shane B. Schreiber, *Shock Army of the British Empire: The Canadian Corps in the Last 100 Days of the Great War* (Westport, Conn: Praeger, 1997), pp.9-14.
 24. "Notes on a Visit of a Party of British Officers to Verdun, January 5th-8th, 1917," LAC RG 9, III, C1, Vol. 3873.
 25. John A. English and Bruce I. Gudmundsson, *On Infantry*, pp.18-31.
 26. "Notes on French Attacks, North-East of Verdun in October and December 1916," Major-General A.W. Currie, 1st Canadian Division dated 23 January 1917, LAC RG 9, III, C1, Vol. 3871, Folder 115, File 8.
 27. Canadian Corps G340 dated 27 December 1916, Battalion Organization (Army and Corps Scheme) LAC RG 9, III, C1, Vol. 3846, Folder 99, File 3.
 28. *Ibid.*
 29. *Ibid.*
 30. Canadian Corps G499, S109/1 10 January 1917, Battalion Organization (Army and Corps Scheme) LAC RG 9, III, C1, Vol. 3864, Folder 99, File 3.
 31. GHQ to First Army OB 1919, dated 7 February 1917, Canadian Corps to First Army G519, S.109/1 dated 13 February 1917, Battalion Organization (Army and Corps Scheme) LAC RG 9, III, C1, Vol. 3864, Folder 99, File 3.
 32. Harry Davies, *Allanson of the 6th*, p.131.
 33. David J. Bercuson and J.L. Granatstein, *Dictionary of Canadian Military History* (Oxford: Oxford University Press, 1992), p.219.
 34. Jeffery Williams, *Byng of Vimy*, pp.144-147.
 35. Robin Prior and Trevor Wilson, *Command on the Western Front: The Military Career of Sir Henry Rawlinson 1914-1918* (Oxford, UK: Basil Blackwell, 1991); Robin Prior and Trevor Wilson, *Passchendaele: The Untold Story* (New Haven: Yale University Press, 1996).
 36. Ashley Ekins, "The Australians at Passchendaele," in Peter H. Liddle (ed.), *Passchendaele in Perspective: The Third Battle of Ypres* London: Leo Cooper, 1997), pp.227-254.
 37. Robin Prior and Trevor Wilson, *Passchendaele*, p.130; see also p.175 and equally validly where conditions render "fire and movement" impossible on pp.176-177.
 38. Ian M. Brown, "'Not Glamorous but Effective': The Canadian Corps and the Set-piece Attack, 1917-1918," *Journal of Military History*, 58, July 1994: 421-444; A.M.J. Hyatt, *General Sir Arthur Currie*; and Bill Rawling, *Surviving Trench Warfare*.
 39. 2nd Army G.140, "General Principles on which the Artillery Plan will be Drawn," included with 2nd Army G.140 to GHQ dated 29 August 1917, Second Army War Diary, August 1917, Vol. XXXII, National Archives - UK [NA-UK] WO 95/275.
 40. 4th Canadian Division G.13-8 dated 9 May 1917, LAC RG 9, III, C1, Vol. 3864, Folder 99, File 3.
 41. 1st Canadian Division dated 9 May 1917, Battalion Organization (Army and Corps Scheme) LAC RG 9, III, C1, Vol. 3864, Folder 99, File 3.
 42. For a succinct overview of the Bullecourt battles see the excellent summary and maps in John Coates, *An Atlas of Australia's Wars, Vol. II, Australian Centenary History of Defence*, pp.60-64.
 43. Jonathan Walker, *The Blood Tub: General Gough and the Battle of Bullecourt, 1917* (Staplehurst, Kent: Spellmount, 2000), pp.101-104.
 44. Walker, *The Blood Tub*, pp.xx, 107-110, 142-148, 189-191.
 45. Daniel G. Dancocks, *Legacy of Valour: The Canadians at Passchendaele* (Edmonton: Hurtig, 1986), p.90.
 46. Hyatt, *General Sir Arthur Currie*, pp.76-77.
 47. Rawling, *Surviving Trench Warfare*, p.142.
 48. Quoted in Hyatt, *General Sir Arthur Currie*, p.79.
 49. *Ibid.*, pp.81-84; Rawling, *Surviving Trench Warfare*, pp.147-52.
 50. Dancocks, *Legacy of Valour*, pp.100-103.
 51. Dean Oliver, "The Canadians at Passchendaele," in Liddle (ed.), *Passchendaele in Perspective: The Third Battle of Ypres*, pp.255-271.
 52. Haig Diary, Monday 23 July 1917, [NA-UK] WO 256/20.
 53. Dancocks, *Legacy of Valour*, pp.223-225.
 54. Interim Report on Operations of the Canadian Corps HQ, LAC, GS Folders 120, File 10. See also *Report of*

- the Ministry, Overseas Military Forces of Canada, 1918* (Canada: Ministry, Overseas Military Forces, 1918), p.103.
55. Report of the Department of the General Staff for the month of February 1918 by Brigadier-General H.F. McDonald CMG, DSO, "Training of Reinforcements at the Base and Within the Corps," LAC RG 9, III, C1, Canadian Corps, HQ GS, Vol. 3870, Folder 112, File 13.
56. Hyatt, *General Sir Arthur Currie*, pp.98-102.
57. *Ibid.*, p.93.
58. Report of the Department of the General Staff for the month of February 1918 by Brigadier-General H.F. McDonald CMG, DSO, "Training of Reinforcements at the Base and Within the Corps," LAC RG 9, III, C1, Canadian Corps, HQ GS, Vol. 3870, Folder 112, File 13.
59. Canadian Infantry strengths as at 9 March 1918:
- | | |
|-----------------|---------------|
| 1st Can Div: | 12,085 |
| 2nd Can Div: | 11,673 |
| 3rd Can Div: | 12,027 |
| 4th Can Div: | <u>11,924</u> |
| Total infantry: | 47,709 |
- Canadian Corps Strength Returns: 7 January 1917-9 March 1918, LAC RG 9, III, C1, Vol. 3867, Folder 107, File 7. The importance of having full-strength infantry units is emphasized in S.F. Wise, "The Black Day of the German Army: Australians and Canadians at Amiens, August 1918," in Peter Dennis and Jeffrey Grey (eds.), *1918 Defining Victory*, pp.1-32; and in Schreiber, *Shock Army of the British Empire*, pp.19-22.
60. Minister Overseas Military Forces of Canada, *Report of the Ministry, Overseas Military Forces of Canada, 1918*, pp.198-199, 244-250, 276; Rawling, *Surviving Trench Warfare*, pp.176-177; Schreiber, *Ibid.*, pp.17-32; Wise, *Ibid.*
61. Rawling, *Ibid.*, pp.177-178; Schreiber, *Ibid.*
62. *Report of the Ministry*, pp.231-238.
63. 2nd Canadian Division Training Instructions dated 10 March 1918, RG 9, III, C1, Canadian Corps HQ GS, Folder 109, File 3, Memoranda on Training Issued by Divisions, LAC.
64. *Ibid.*
65. *Report of the Ministry*, p.124.
66. Interim Report on Operations of the Canadian Corps during the year 1918, p.11, LAC RG 9, III, C1, Canadian Corps HQ, GS Folders 120, File 10. See also *Report of the Ministry, Overseas Military Forces of Canada, 1918*, pp.109-110.
67. *Report of the Ministry*, p.124.
68. Quoted in Hyatt, *General Sir Arthur Currie*, p.105.
69. *Report of the Ministry*, p.124.
70. *Ibid.*, p.123.
71. Wise, "The Black Day of the German Army: Australians and Canadians at Amiens, August 1918"; Bill Rawling, "A Resource Not to Be Squandered: The Canadian Corps on the 1918 Battlefield," in Dennis and Grey (eds.), *1918 Defining Victory*, pp.1-32, 43-71; Schreiber, *Shock Army of the British Empire*, pp.33-69.
72. Morton and Granatstein, *Marching to Armageddon*, p.203.
73. Michael Howard, *The First World War* (Oxford: Oxford University Press, 2002), p.128.
74. *Report of the Ministry*, p.140.
75. J.P. Harris with Niall Barr, *Amiens to Armistice: The BEF in the Hundred Days Campaign, 8 August - 11 November 1918* (London: Brassey's, 1998), pp.119-120.
76. Quoted in Harris, *Amiens to Armistice*, pp.145-146.
77. Bercuson and Granatstein, *Dictionary of Canadian Military History*, p.69.
78. Morton and Granatstein, *Marching to Armageddon*, p.222.
79. Bill Rawling, "A Resource Not to Be Squandered: The Canadian Corps on the 1918 Battlefield," in Dennis and Grey (eds.), *1918 Defining Victory*, pp.43-71; Schreiber, *Shock Army of the British Empire*, pp.71-86.
80. Harris, *Amiens to Armistice*, pp.153-155.
81. *Report of the Ministry*, p.168.
82. *Report of the Ministry*, p.184.
83. Hyatt, *General Sir Arthur Currie*, pp.129-130.

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