



The Defence of Sanctuary Wood, painting by Kenneth Forbes, depicts the gallant defence by the Princess Patricia's Canadian Light Infantry on 2 June 1916.

LESSONS FROM THE GREAT WAR

by Dr. Jack English

This article is the text of a presentation made at the XXVth Military History Symposium at Royal Military College on 21 March 2003.

My purpose in writing this paper is to look at the Canadian military responses to the so-called lessons of the Great War and it is, thus, appropriate to begin by noting that at the official opening of Currie Hall at Royal Military College on 17 May 1922, General Sir Arthur Currie, Canada's greatest general, made the following remarks:

I cannot tell you how utterly embarrassed and yet how inexpressibly proud I am to witness this ceremony, and to be present when this hall is officially opened. This hall is to commemorate the deeds of our fellow comrades whom it was my great honour and privilege to command during the latter years of the War. It is a pleasure to look around and see the crests and battle colours of every unit that fought in France; and they remind me of the supreme effort of Canada, and they tell something of how Canada responded to the call to arms. When the time came to put forward the best of our manhood and our womanhood, we are all proud to say that Canada was not found wanting. It was the spirit of determination that won "over there..." ... But, unless we show ourselves, here at home, further determination to complete the fight for that which is right and just, we will be setting to naught the good work of our Canadian boys in France. There will come a time of real peace when swords will be turned into ploughshares for good and all, but until that time comes,

we Canadians must not forget the fidelity, fortitude and achievement of our soldiers. We must not fall back altogether into the slothfulness of peace."¹

Currie had every right to be proud of his soldiers in the Canadian Corps, which had become increasingly battle worthy after Sir Sam Hughes' dismissal as Minister of Militia and Defence in November 1916. Hughes had been responsible for the chaotic mobilization of the Canadian Expeditionary Force (CEF), and the Corps had come to resent his amateurish meddling. Indeed, it was Canadian Corps reaction against ramshackle training, reinforcement and personnel selection policies that propelled the development of a truly professional Canadian Army. Under Currie, the Canadian Corps became one of the most formidable fighting formations on the Western Front. In a war of high intensity that left little room for strategic manoeuvre, bottom-up tactical innovation effected through meticulous staff work characterized corps operations. Currie, for his part, experimented with motor machine guns and always employed an all arms approach incorporating surprise and movement where possible. The Canadian Corps also possessed the inestimable advantage of having permanently allocated national divisions, which enabled it to develop an organizational cohesion and operational capability that other corps lacked. The British did not have this luxury as the division was the only permanently structured fighting formation. Corps were task-organized to make optimal use of resources and their composition altered as the operational situation demanded.

Dr. Jack English, *author of the widely acclaimed The Canadian Army and the Normandy Campaign*, is *Director of Research for the Minister's Monitoring Committee at NDHQ*.



General Sir Arthur Currie, painting by Sir William Orpen.

Currie was also able to keep the Canadian Corps out of the line during the 1918 German March offensive because he insisted that it be fought as a complete entity. He further refused to ‘triangularize’ Canadian divisions, which left them one-third more powerful than their British or Australian equivalents.²

Without question, the Canadian Corps was a ‘Rolls-Royce’ formation, more akin to a field army than a corps. Always kept up to strength, it never felt betrayed or let down by the Canadian government as was the case with the Canadian Army in the Second World War. In fact, the close bond between the government of Sir Robert Borden and the CEF precipitated the conscription crisis of 1917. Yet, as has been too often forgotten, it was really only a miracle that the Allies did not lose the war in that year, which saw the collapse of Russia, the near collapse of Italy after Caporetto, widespread mutiny within the French army, the height of unrestricted submarine warfare, and the agony of Passchendaele. Canada’s victory at Vimy provided but one of a few rays of hope, which no doubt strengthened her resolve to see things through to the bitter end. Planning also began to be predicated on the basis of the war lasting into 1920.

As demonstrated by Shane Schreiber in his book *Shock Army of the British Empire*,³ the shining hour of the Canadian Corps came during the Hundred Days of victory that ended on 11 November 1918. From the surprise attack at Amiens on 8 August 1918, “the black day of the German army”, the field

forces of the British Empire advanced relentlessly over some 100 kilometres to break the back of the German army on the Western Front. To an extent greater perhaps than any other fighting formation, the Canadian Corps spearheaded this last Allied offensive of the war, which in terms of planning, preparation and execution was thoroughly modern in nature. Involving the use of tanks, indirect fire, tactical air support, chemical munitions, electronic deception, and command, control and intelligence systems, it also presaged the shape of things to come in the Second World War.⁴ In a series of all arms actions the German army was sent reeling back, to be saved from ultimate destruction only by the eleventh hour Armistice.

Never before or since have Canadian troops played such a crucial and decisive role in land operations. The illustrious fighting performance of the Canadian Corps was enough to persuade Canada’s foremost military historian, the late Colonel C.P. Stacey, that the “creation of the Canadian Corps was the greatest thing that Canada had ever done.”⁵ The Second World War, he noted with some irony, was but the second-greatest event in Canadian history. In terms of lives lost the price had been enormous, and by such a yardstick the Great War remains Canada’s greatest war. The conflict cost the Dominion over 60,000 dead, more of whom fell in battle than their 48,000 American comrades killed in action. Indeed, the Canadian death toll in this far distant war exceeded that of the United States in Vietnam; but whereas the United States drew its soldiers from a population base of more than 200 million, Canada in the summer of 1914 boasted fewer than eight million souls.⁶

As we know, however, the Canadian military in the scant space of twenty years, did, to use Currie’s words, “fall back”. One indication of this was that when *Panzergruppe* Kleist slashed through the French front west of the River Meuse and set out on its armoured drive toward Dunkirk in 1940, elements of the 1st Canadian Infantry Division were practicing dawn raids at the Trench Warfare Training Centre in Imber, England. Months earlier the commander of the Canadian Army, General Andrew McNaughton, had even studied the possibility of retaking Maginot Line defences by employing Canadian Tunnelling Company diamond drillers in countermining operations.⁷ The later performance of the Canadian Army in Normandy also appears somewhat lacklustre when compared to that of the Canadian Corps. (Though certainly not as awful as has been made out on the basis of questionable evidence by Russell Hart in his *Clash of Arms*,⁸ a comparative study of German, American, British and Canadian land forces.) The gnawing feeling nonetheless persists that the Canadians should have done better in Normandy.

Whether this outcome was avoidable is debatable, for after the “war to end all wars” Canada left her dead behind and turned her back on Europe. With the Central Powers supposedly vanquished, Canadians were little disposed to contemplate the possibility of another major or even minor conflict. Disillusionment, frustration and uncertainty largely characterized the domestic scene in the aftermath of the Great War. The year 1919 witnessed increasing agrarian unrest and the worst labour strife ever. An economic slump between 1920 and 1922 left over 15 percent of the work force unemployed. Although growth improved from 1926, it came to a shuddering halt when the Great Depression struck in October 1929. In the eyes of many, it was because Canada had paid so dearly in the Great

“The shining hour of the Canadian Corps came during the Hundred Days of victory that ended on 11 November 1918. ... Never before of since have Canadians played such a critical and decisive role in land operations.”

War that she had now been laid so low. Not until 1938 did national revenue exceed that of 1929. In such circumstances it is not surprising that trade, tariff and market concerns trumped arms and defence.⁹ Perhaps the lesson here is that military establishments should expect peacetime public disinterest as a matter of course after wars and embrace it an inevitable condition. One can understand the reaction of the Canadian people after the Great War, but have less sympathy for a peacetime military establishment whose job it was to prepare for future war.

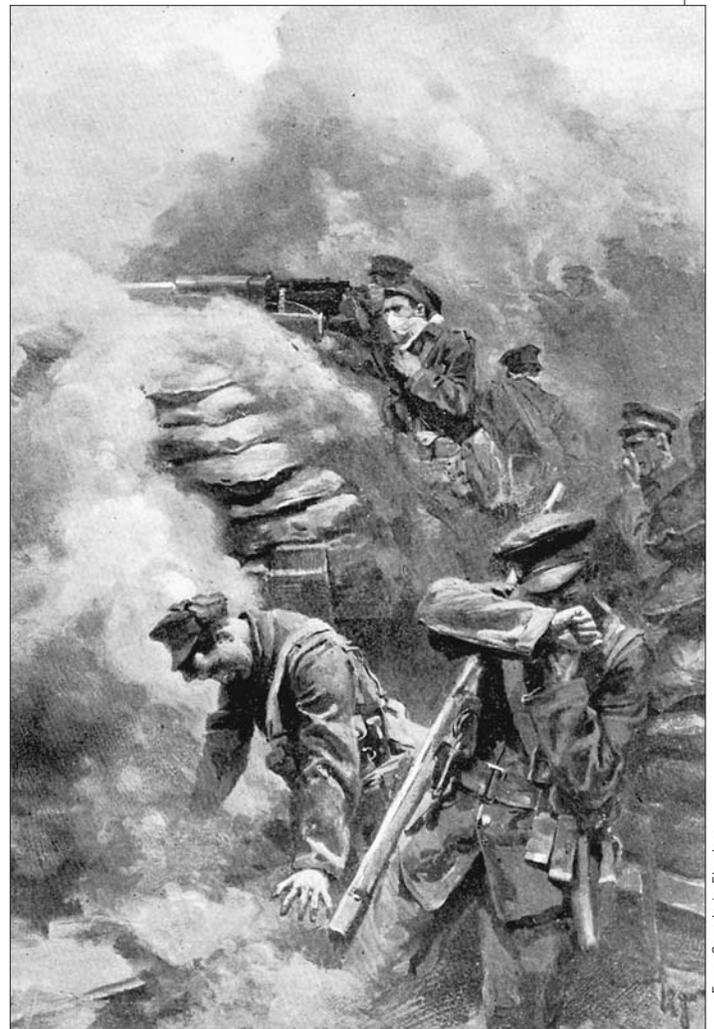
Yet, in defence of the Canadian military establishment, a chaotic international order laced with conflicting military lessons made the future exceedingly difficult to read.¹⁰ The British, tired of balance of power politics, leaned toward supporting world disarmament, the pacific settlement of international disputes, and the deterrence of aggression through moral suasion rather than force. They were also enthusiastic about the League of Nations, which they considered an instrument of conciliation rather than security. The 1919 publication of John Maynard Keynes's *Economic Consequences of Peace* additionally convinced many that Germany had been too harshly treated in the Treaty of Versailles. When the French ran troops into the Ruhr in 1923 to ensure that the defaulting Germans continued to pay reparations for the cost of war damage, British sympathies were clearly with the Germans, whom they wished to bring back into the community of nations. From 1924 onward the governments of Prime Minister Ramsay MacDonald actively worked toward the reconciliation of Germany, with disarmament his top priority. In the Locarno treaties of 1925, which marked the height of international goodwill during the interwar years, the British also agreed to guarantee the Franco-German frontier against French as well as German incursion. Locarno, in effect, prevented any military cooperation between Britain and France so long as it remained in force. The major strategic lesson of the war, that Germany could only be defeated and held in check by a coalition of great powers, was accordingly ignored.

The French seemed to understand this fact and the reality that Germany, undamaged by war and its industrial base intact, had actually emerged the strategic victor. Knowing full well that the Boche could rise again, they sought indefinite control over the Rhine bridgeheads as a military guarantee of French security. But neither Prime Minister Lloyd George nor President Wilson would agree to the separation of the Rhineland from Germany, for fear of creating a new Alsace-Lorraine in reverse. They offered instead a joint Anglo-American guarantee to support France immediately if she were attacked by Germany. Unfortunately for France, the guarantee lapsed with the United States' Senate's refusal to ratify the Versailles Treaty, which Britain claimed also invalidated her part of the

bargain. The French thus had to be satisfied with a demilitarized Rhineland. Deserted by major allies, they also came up with the imaginative idea of the Maginot Line.¹¹

Although long forgotten, the Maginot Line was an attractive concept and one that, by most modern definitions, would qualify as a revolution in military affairs. Intended as a shield against surprise, behind which the nation could mobilize in safety, it also aimed at conserving manpower and releasing men for offensive operations. Its brilliant central feature was that of a “battlefield prepared in peacetime”. Ironically, it also provided the British Treasury with a strong argument for not needing to field an expeditionary force for the Continent. Of course, we now know that the French did not lose in 1940 because of their defensive posture – the Maginot Line was never cracked. They lost because they undertook an offensive to counter an expected enemy Schlieffen-style attack through Belgium. The maldeployment of French reserves as a consequence of this action effectively ensured that none were available to meet the unexpected German thrust through the Ardennes.

In Britain, meanwhile, there emerged a growing school of thought that held it had been a strategic mistake for that country to have accepted the continental commitment of a mass army in the Great War. The 1932 publication of Liddell



Drawing depicting the gas attack on the 15th Battalion CEF, 24 April 1915.

From Canada in Flanders

Hart's *British Way in Warfare* provided an intellectual foundation for this school by urging a return to Britain's "blue water" strategy with its emphasis on blockade and the peripheral use of the army as a "projectile to be fired by the navy". In conjunction with this, Liddell Hart also advocated a strategy of the indirect approach, and, coincidentally, the doctrine of limited liability that proposed committing mainly air and sea and only minimal British land forces to the direct assistance of European allies. This doctrine had powerful appeal for a number of reasons, among them still vivid memories of Great War slaughter, mistrust of the French, crude inter-service rivalry, an accepted need to buy time, and, perhaps most importantly, Treasury concern for balancing the budget. For such reasons the government of Prime Minister Neville Chamberlain adopted a limited liability defence policy in December 1937 that gave priority to the RAF, largely because of the perceived deterrent value of strategic bombing doctrine, with the navy and army following second and last in order. In April 1939 the government of Mackenzie King slavishly followed suit, giving primacy to the Royal Canadian Air Force and priority to the Royal Canadian Navy over the Militia. By this time, of course, Britain had rejected limited liability and accepted a Continental commitment.¹²

As any reading of the *Canadian Defence Quarterly* during this period will confirm, the Canadian services (British Subjects all, as were all Canadians) similarly kept themselves abreast of international developments and conflicting military trends overseas. From the Imperial Defence Conference of 1909 up to 1937 a direct channel for exchanging military information existed between the Chief of the Imperial General Staff in London and the Chief of the General Staff in Ottawa. By the 1920s the Canadian General Staff received on a regular basis a veritable flood of documents from all over the Empire. The Great War had also fostered closer relations between Canada and Britain and most especially their militaries. There never was any serious attempt between wars to establish an army staff

college in Canada. Lieutenant-Colonel, later General, Harry Crerar had even written that he could "imagine no worse blow to the practical assimilation of the Military Forces of the Empire than that each Dominion should have its own Staff College."¹³ This in itself was not necessarily a bad thing as Camberley and Quetta provided the Canadian officer with the same first-rate military education that commanders such as Slim and Montgomery received. On the other hand, the more senior Imperial Defence College (IDC) focused on the broadest aspects of imperial defence rather than the specifics of producing battlefield commanders capable of handling sizeable formations in combat. As senior Canadian officers considered attending IDC to be more career beneficial,

it had the iniquitous effect of fostering greater interest in the politico-strategic arena than the more mundane training world of a small force.¹⁴ The assessment that Canadian higher commanders were better trained in the "great issues of peace and war, not for the battlefield"¹⁵ was not far off the mark.

Given the limited relative strength of the Canadian military establishment, the great strategic questions of the day could hardly be said to fall within its purview. Neither were the lessons learned by Currie and the Canadian Corps particularly strategic in nature. Perhaps the major lesson learned in this area was that the Canadian Corps had to shine in its tactical and operational proficiency. In brief, it was the tactical feats of Canadian troops in Flanders that won our Prime Minister a voice in the Imperial War Cabinet and earned Canadian diplomats enhanced status in the British Empire Delegation at Versailles. On 16 April 1917, ten days after the Canadians attacked at Vimy, the Imperial War Conference in Resolution IX formally recognized Canada as an autonomous nation within an Imperial commonwealth, thereby firmly cementing the cornerstone of nationhood itself.¹⁶ The exercise of Canadian arms, in other words, established Canada as a sovereign nation in the eyes of others. The tactical imperative of impressing allies in order to gain a strategic voice and influence thus seems to have been an important offshoot of defeating the enemy through prowess on the battlefield.

The Great War unquestionably constituted a watershed in the transformation of war. The roots of modern operational and logistical staff planning, military mapping, indirect fire, air operations, chemical warfare, electronic deception, wireless communication and mechanization all grew firmly in the fertile soil of France and Belgium. Unfortunately, during the interwar years, the forlorn images of the Somme and Passchendaele continued to overshadow the fire and movement victories of 1918. The general perception that stalemated trench warfare prevailed from the beginning to the end of the Great War may also have been reinforced by the continued need for "hard pounding" during the Hundred Days. The more one studies later wars and military operations, however, the more one is drawn back to this watershed in war fighting, which witnessed unparalleled technological change and saw more soldiers perish by fire than by disease. Whereas small arms fire inflicted between 80 percent and 90 percent of battle casualties before the Great War, indirect shellfire accounted for more than 60 percent thereafter.¹⁷ Improvements in military medical services further ensured that for the first time in warfare more deaths resulted from combat than from disease.¹⁸

Of all modern military advances wrought by the Great War, which was also fought in a chemical environment, none was more significant than the development of the indirect fire capabilities of artillery, and it set that conflict apart from earlier wars. Indeed, all previous wars seemed comparatively old-fashioned affairs in which the field gun performed a role more akin to that of the tank than modern artillery. Neither the machine gun nor the 'machine gun destroyer' that came to be called the tank inflicted as many casualties as the steel rain of artillery. The sheer magnitude of the preparations associated with the provision of artillery ammunition and war materiel also heralded a sea-change in logistics.¹⁹

"It was the tactical feats of Canadian troops in Flanders that won our Prime Minister a voice in the Imperial War Cabinet and earned Canadian diplomats enhanced status in the British Empire delegation at Versailles. ... The exercise of Canadian arms, in other words, established Canada as a sovereign nation in the eyes of others."



Canadian War Museum 8095

Canadian Gunners in the Mud, Passchendaele, 1917, painting by Alfred Bastien.

The suggestion has been made, of course, that the employment of tanks in greater number would have substantially reduced Allied casualties during the final stages of the war. In circumstances where the Germans produced few tanks of their own this may well have proven true, but such a contention has no universal validity. When tanks were used in abundance by both sides during the Second World War there was no discernible reduction in relative casualties. The idea persisted nonetheless that the carnage of the trenches could be circumvented in the future through the technological means of strategic air power and the use of tanks. In Britain during the inter-wars years an “all-tank” school of military thought even appeared.

Yet, the aberrant breakthrough of *Panzergruppe* Kleist on the French front in 1940, aptly hailed as “the first time armour was used in the operational role”, can hardly be explained in terms of tank superiority alone.²⁰ Tanks were a vital fighting component to be sure, but as demonstrated time and again in the Second World War, the ultimate path to success lay not in the employment of individual panacea weapons but in the correct application of all arms. Arguably, the secret behind German panzer operations was not the tank, which remained vulnerable to mines and medium artillery, but the invisible antitank gun.²¹

In hindsight it can now be seen that the quest for armoured mobility during the interwar years contributed to the neglect of artillery. By the 1920s the British, American, and German armies had all but abandoned artillery firepower concepts developed during the Great War. When forced by the Second World War to relearn what they had lost, the Germans never caught up to the Allies, much less the Soviets, who had all along maintained and improved upon Great War artillery techniques.²² In many ways, the continued importance of indirect artillery fire as a fighting arm attested to the wisdom of critics like Victor Germain, who during the inter-war years expressed serious reservations about ‘mechanization’. To

Germain, the theory that success in war was “to be gained neither by a process of hard fighting, nor by superior leadership, training, or numbers, but by the surprise use of some wonderful invention” was as dangerous as it was attractive. Never one to underestimate the importance of technique in war, he also maintained that speed was no substitute for fighting power backed up by staying power. With remarkable prescience, he also ventured that the next war would find industrialized belligerents “in a state of general equilibrium as regards armaments, equipment, and tactical standards.”²³ In the event, the Second World War saw the meat-grinder of the Western Front shifted to the Eastern Front, where more people fought and died than in all other theatres of war around the globe put together.²⁴

Currie and the Canadian Corps knew that fighting a determined first-class enemy on a decisive front called for “hard pounding” and the operational orchestration of all arms. They would probably have survived the Eastern Front as they had the Western Front. How the Canadian Corps managed to turn a tactical victory into a continuous string of consecutive successes in a sustained campaign during a war of high intensity still demands attention. Without question, the Canadian Army would have been better prepared to fight in Normandy had it studied how to fight the last war. Unfortunately, failure to produce any detailed analysis of the corporate knowledge that went into making the Canadian Corps one of the world’s most successful fighting formations inhibited the future intellectual growth of the Canadian Army.²⁵

The years between wars were in fact squandered. Granted, there was a strong movement to restructure the land force on the basis of the CEF, and a committee headed by the elderly General William Otter was struck in 1919 to make recommendations as to how to do this. This turned out to be a complicated and controversial undertaking, however, since it involved the award of coveted battle honours won by CEF numbered battalions to those Militia units that had furnished them with wartime drafts of soldiers. The original idea of fusing the CEF and Militia that might have led to the reform as well as reorganization of the latter was soon lost in the process. The lessons of the Great War with respect to the operations of large formations, the role of machine guns and tanks, plus the need for mechanization, were hardly discussed. Little concern was expressed about the purpose and object of military forces or their future role in the defence of Canada. Despite public calls for a force designed for war fighting instead of a social edifice to be jettisoned as soon as storm clouds appeared, the Otter Committee accomplished little more through its deliberations than a return to the pre-war situation.

“The Canadian Army would have been better prepared to fight in Normandy [in 1944] had it studied how to fight the last war.”

Meanwhile, the politics of service survival and bureaucratic battles for budget slices diverted the Canadian Militia from its professional military focus. In keeping with a policy of retrenchment, the Mackenzie King government from 1922 placed all Canadian services under a single Department of National Defence (DND). The most immediate result was an inter-service struggle of disgraceful proportions. In what was clearly a power play, the CGS, Major-General J.H. MacBrien, managed to get himself appointed Chief of Staff (COS) with broad powers of coordination over air and naval plans and programmes. Subsequent resistance by the Royal Canadian Navy so consumed the COS, however, that matters pertaining to Militia preparedness and defence planning were neglected. Indeed, between 1924 and 1927 the land forces lacked effective leadership of any kind. On MacBrien's resignation in 1927, the position of COS was allowed to lapse and that of Chief of the Naval Services created. When Major-General McNaughton became CGS in January 1929, he strove unsuccessfully for the re-institution of the COS position and worked incessantly for a reduction in naval funding. In his view, air power had rendered traditional concepts of sea power obsolete, especially in the realm of coastal defence.

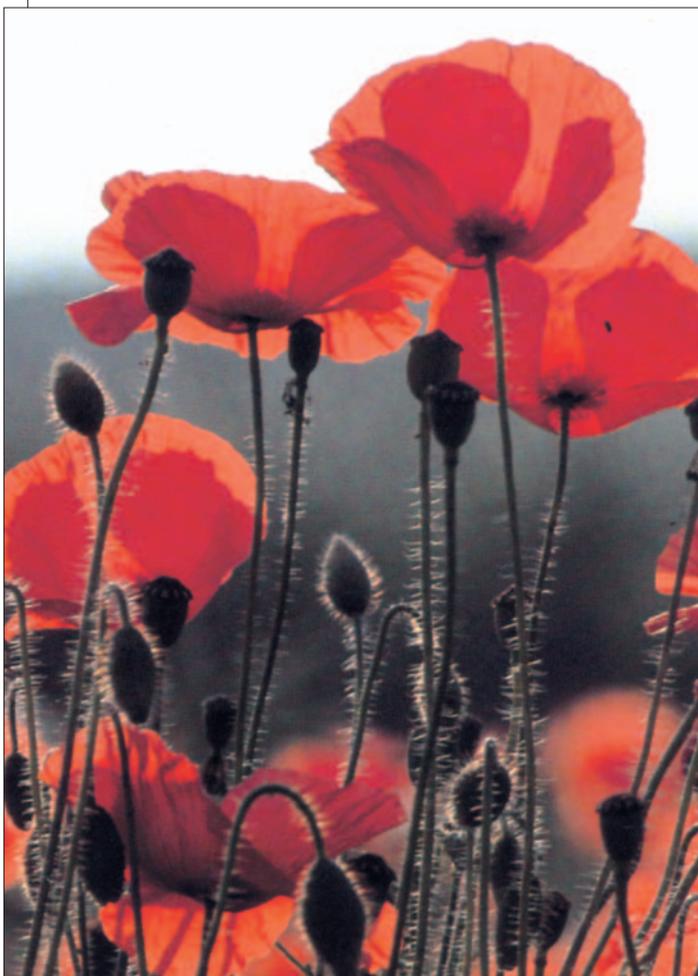
Under McNaughton, who served as CGS from 1929 to 1935, the Army focused to an unhealthy degree upon non-operational peripheral activities that included aid of the civil power call outs in 1922-23 and 1932-33. At McNaughton's personal instigation, the Army between 1932 and 1936 additionally ran

relief camps called "Royal Twenty Centres" for unemployed single men. In their heyday between 1934 and 1935, which marked the nadir of Militia neglect, no regular force collective training in central camps was conducted. McNaughton's extensive interest in furthering northern communications and aerial mapping, among other scientific pursuits, also largely contributed to the neglect of training commanders and soldiers for war. Although a strong proponent of a citizen Militia, McNaughton did little to ensure that it was adequately trained by a regular force formally charged with just this task. Reflecting another common perception of the time, McNaughton also expected armies of the future to be smaller, more mobile, harder hitting, and better trained than those of the past.

To McNaughton, who even revised campaign speeches for the Prime Minister, military knowledge was largely a matter of technical proficiency that any scientifically educated person or successful businessman could master probably better than a regular officer. He thus essentially denied the existence of a profession of arms akin to an academic discipline that called for the detailed and concentrated study of what Carl von Clausewitz termed "fighting proper". These views, scarcely unique to McNaughton, proved attractive and popular to civilian and academic authorities who, in turn, showered him with honours. When McNaughton left office in 1935 he wrote a famous memorandum describing the deficiencies and sorry state of the Canadian forces, for which several of his former military comrades held him directly accountable.

Although not intending to do so, McNaughton left the Militia in a worse state than it was when he assumed the appointment of CGS. Unlike the Germans who explored operational concepts using mock tanks and dummy anti-tank guns, the Canadian Militia under McNaughton catered to politicians who, as blind as their electorates, could not envision another great war. In actively seeking and assuming highly visible and politically attractive non-military roles, ostensibly to ensure the survival of the Militia as a fighting force, McNaughton virtually guaranteed the opposite: the continued erosion of whatever operational capability remained. Keeping alive the art of war fighting, especially against a first-rate enemy, was not accorded a high priority. Peacetime routine, managing military properties, and strategic speculation all rated higher than operations.

Regardless of the tyranny of Canadian geography, equipment shortages and lack of communications, much more could have been done in the area of war games, tactical exercises without troops and skeleton exercises had the *will* been there. Indeed, certain dedicated officers through individual inquisitiveness and diligence demonstrated just what a similarly focussed militia could have accomplished institutionally. The tactical debate conducted in the pages of *Canadian Defence Quarterly* between Lieutenant-Colonel E.L.M. Burns and Captain G.G. Simonds, both future corps commanders, stands as a case in point. The doctrinal article produced by Simonds on the attack remains another. Reservists such as Brigadier Stanley Todd, who rose to command 2nd Canadian Corps artillery, also took it upon themselves to learn all that they could about their particular area of military expertise, so that when war came they would actually know something about war fighting. But such focus was neither all that prevalent nor actively promoted by the military establishment itself. For the most part, individual officers, both regular and reserve, were left to become professional on their own.²⁶



Flanders poppies.

Obviously, penny-pinching defence budgets and political neglect cannot be blamed entirely for the dissipation of the heightened sense of military professionalism that became the hallmark of the Canadian Corps. Neither do I consider it altogether fair to hold peacetime societies more accountable than their soldiers for failing to remember that the chief purpose of any army, in the final analysis, is to fight its country's wars and fight them well. Not everyone would agree with me. At least one distinguished historian has argued that the Canadian

“Perhaps ... military establishments should expect peacetime public disinterest as a matter of course after wars and embrace it as an inevitable condition.”

people “were remarkably well served by their army in the interwar years” and “got a good return on their paltry investment in defence ... far more than they deserved.” The question was not how much money was wasted by the Army between the wars, but how, despite an almost total lack of funds, it managed to attract and retain any men of competence. In his view, political neglect of the military

during the inter-war years mainly accounted for Canadian Army shortcomings in the Second World War. The 400-odd regular officers of the Permanent Force did all that could reasonably be expected of them to prepare the 5,000-strong Permanent Force and 5,000 officers and 45,000 men of the reserves for war (though many of the 400 were also described as “aged and even more never budging from their chair in the mess”). According to this view, when war eventually came, young competent commanders superseded their elders who acted as a ‘cover crop’ to bring them on. As for tactical shortcomings afflicting the Canadian Army, these “could be blamed on ... British [doctrinal] models.”²⁷

I still question, however, whether the professional military establishment between wars should be let off so lightly. Certainly, in the subsequent performance of the Canadian Army overseas the government of Canada got much more than it deserved, but I doubt whether the Canadian people, whose sons bore the brunt of the firestorm, really got as much as they should have from the peacetime endeavours of the professional military establishment they retained during the interwar years. It is true, of course, that the almost \$24 million allocated for defence in 1930-31 represented only 5.4 percent of total government expenditure,²⁸ but let's take a closer look at this. In 1991-92 defence received \$12.1 billion, or 8 percent of total government expenditure, but of this a hefty 57 percent went toward personnel related costs.²⁹ This means that if such expenses were not so high in 1930-31, as they could not possibly have been, we may not be all that far apart in equivalent percentages. Except for one year between 1921 and 1939, when the percentage swelled to 18.5 percent, defence expenditure as a percentage of total government expenditure averaged 4.8 percent.³⁰ The taxpayer still had a right, nonetheless, to expect something from such paltry sums.

As for attracting men of competence, one would do well to bear in mind that the Canadian high command was paid handsomely to hold the peacetime military *in trust* for

the Canadian people. In 1932 the CGS received the hefty sum of \$10,000 per annum. This was enough to support a comparatively resplendent life style at a time when doctors, dentists, and lawyers earned but \$1,500 per year, schoolteachers \$400, and domestics less than \$300. Basic old age pension had also been fixed at \$240 per year in 1927. Within the Defence department in 1932 no fewer than 139 people received between \$4,000 and \$4,900 per year, thirty others between \$5,000 and \$5,900, and a further fifteen between \$6,000 and \$6,900. The pay of regular force brigadiers during this same period ranged between \$5,000 and \$6,500 yearly and majors between \$3,300 to \$4,000. A captain made almost \$3,000. People fortunate enough to be on fixed incomes after 1929 (which year saw 60 percent of working men and 82 percent of working women living on less than \$1,000 a year) also found that their money could buy much more.³¹ According to Major-General Chris Vokes, who went on to command the 1st Canadian Infantry Division in Italy, the “feeling of security” so pronounced among Permanent Force members during the interwar years permeated the peacetime Army. In his words, “Provided an officer, no matter how lazy or incompetent, could avoid sudden death or grave misbehaviour, he could look forward to a ripe old age in the service.”³² Canadian taxpayers thus had every right, despite their disinterest in military affairs, to expect a good return on their money from those they retained as an insurance policy to look after Canada's long-term defence interests.

All that said, to give McNaughton his due, Defence Scheme No. 3, approved in January 1932, provided an effective mobilization plan for the dispatch of an expeditionary force overseas. There was to be no repeat of the Hughes' debacle, even though Mackenzie King continued to the last to dodge any possible form of European commitment. To make Defence Scheme No. 3 more palatable, the General Staff in March 1937 submitted a variation that provided for the deployment of a two-contingent “Mobile Force” (comprising one cavalry and two infantry divisions) for operations in Canada as well as overseas. Sustained pressure by the General Staff in this area eventually persuaded the government to mobilize this force on 1 September 1939 in general accordance with the provisions of Defence Scheme No. 3 (which also served as the basis for the 1941-42 Army [Expansion] Programme). Thus, insofar as the primary purpose of a general staff is to prepare for war in peace, the Canadian General Staff can be said to have done its job reasonably well in a ‘capital staff’ sense. That is to say, it had a workable high-level war plan available for the military contingency at hand. Correctly anticipating that the Canadian public would so demand, it had for two decades planned to dispatch an expeditionary force that, after Dunkirk, was not to be denied. Here, ironically, the General Staff proved to be more in step with the Canadian people than was their government. On the other hand, as a general staff in the sense of a ‘troop staff’, that is, one charged with training a field army for wartime operations in peace, it had done much less well.³³ In fact, it had forsaken its Great War professional legacy and its true *raison d'être*.



NOTES

1. Mitchell Kryzanowski, *Currie Hall: Memorial to the Canadian Corps* (Kingston: Hewson and White, 1989), p. 9.
2. John A. English, *The Canadian Army and the Normandy Campaign: A Study of Failure in High Command* (New York: Praeger 1991), pp. 16-18, 308.
3. Shane B. Schreiber, *Shock Army of the British Empire: The Canadian Corps in the Last 100 Days of the Great War* (Westport: Praeger, 1997).
4. Shelford Bidwell and Dominick Graham, *Fire-Power: British Army Weapons and Theories of War 1904-1945* (London: George Allen and Unwin, 1982), pp. 140-45; Bill Rawling, *Surviving Trench Warfare: Technology and the Canadian Corps, 1914-1918* (Toronto: University Press, 1992), pp. 188-215; Paddy Griffith, *Battle Tactics of the Western Front: The British Army's Art of Attack 1916-18* (New Haven: Yale University Press, 1994), pp. 92-4, 173-5. Captain Shane B. Schreiber, "The Orchestra of Victory: Canadian Corps Operations in the Battles of the Hundred Days 8 August – 11 November 1918," Unpublished MA Thesis, Royal Military College of Canada, 1995, pp. 57-156, 171-258; and Tim Travers, *How the War was Won: Command and Technology in the British Army on the Western Front, 1917-1918* (London: Routledge, 1992), pp. 115-74. Unfortunately, the invaluable contributions of aircraft and wireless to ground victory were forgotten by the British. Wireless development was never accorded a priority and the air force went off in search of a strategic role. Bidwell and Graham, *Fire-Power*, pp. 145-146.
5. C.P. Stacey, *Canada and the Age of Conflict: A History of Canadian External Policies, Vol. I: 1867-1921* (Toronto: Macmillan, 1977), p. 238.
6. John A. English, *Lament for an Army* (Toronto: Irwin, 1998), pp. 17-19.
7. English, *Normandy*, pp. 76-77.
8. Russell A. Hart, *Clash of Arms: How the Allies Won in Normandy* (Boulder: Lynne Rienner, 2001).
9. English, *Normandy*, pp. 40-41.
10. John A. English, *Marching through Chaos: The Descent of Armies in Theory and Practice* (Westport: Praeger, 1996), pp. 87-94.
11. See P.M.H. Bell, *The Origins of the Second World War in Europe* (London: Longmans), pp. 20-37, 89-109, 163-182.
12. English, *Normandy*, pp. 22-29.
13. Lt.Col. H.D.G. Crerar, "The Development of Closer Relations between the Military Forces of the Empire", *Journal of the Royal United Services Institute* 483 (August 1926), p. 452.
14. English, *Normandy*, pp. 24, 48-49, 51, 54, 95-98, 309.
15. Steven J. Harris, *Canadian Brass: The Making of a Professional Army 1860-1939* (Toronto: University Press), pp. 207-209; and English, *Normandy*, p. 47.
16. Stacey, *Age of Conflict I*, pp. 213-216.
17. According to the US Army Medical Department, American forces in the Great War suffered 26 percent of all hits from small arms fire and 65 percent from shells; in the Second World War the figures were 20 percent and 60 percent respectively. George Raudzens, "Firepower Limitations in Modern Military History", *Journal of the Society for Army Historical Research*, 271 (Autumn, 1989), pp. 134-5, 148.
18. Quincy Wright, *A Study of War* (Chicago: University Press, 1970), p. 59; and Raudzens, p. 135. William H. McNeill, *Plagues and Peoples* (New York: Anchor, 1989), pp. 251-2, 328.
19. Martin van Creveld, *Supplying War: Logistics from Wallenstein to Patton* (Cambridge: University Press), pp. 110, 141. In the Franco-Prussian War the Germans fired an average of 199 rounds per artillery piece, but in 1914 the roughly 1000 rounds per gun held in German stocks were depleted within a month and a half. *Ibid.* According to John A. Lynn, ammunition accounted for 5-8 percent of U.S. ground force supply during the Second World War, food about 10 percent, fuel 16-17 percent, and construction material 11-18 percent. John A. Lynn, "The History of Logistics and Supplying War", *Feeding Mars: Logistics in Western Warfare from the Middle Ages to the Present*, ed. John A. Lynn (Boulder: Westview, 1993), pp. 21-3.
20. Karl-Heinz Frieser, "The Execution of the 'Sickle Cut Plan' Using the Example of Panzergruppe [Armoured Group] Kleist" in *The Operational Thought of Clausewitz, Moltke, Schlieffen, and Manstein* translated by Multilingual Translation Directorate, Secretary of State Canada (Freiburg, 1989), p. 84. Among the more prominent factors that contributed to success was movement, which the Germans facilitated by establishing major fuel depots close to the border and by having the Panzergruppe carry the bulk its supplies. Trouble only arose because that formation, with over 41,000 vehicles at its disposal, was allocated but four routes (on one route the Panzergruppe would have stretched 1540 kilometres, the distance from the Luxembourg border to beyond Königsberg in East Prussia). Such faulty operational planning was nonetheless "put right by the tactical mobility of the middle and lower command." *Ibid.*, pp. 87, 100.
21. English, *Chaos*, p. 95 and *Normandy*, p. 165.
22. David T. Zabecki, *Steel Wind: Colonel Georg Bruchmuller and the Birth of Modern Artillery* (Westport: Praeger, 1994), pp. 118-33.
23. Victor Germains, *The "Mechanization" of War* (London: Sifton Praed, 1927), pp. 1, 117, 122, 194. Germains asked why with roughly the same number of tanks at their disposal as at Amiens the British failed miserably to stem the tide of the German stormtroop-artillery offensive launched on 21 March 1918? Neither, he argued, did tanks ever enable the Allies to make gains as rapidly or on so sweeping a scale as the Germans without tanks.
24. Gerhard L. Weinberg, *A World at Arms: A Global History of World War II* (Cambridge: University Press, 1994), p. 264.
25. Schreiber, *Shock Army*, pp. 133-135.
26. English, *Lament*, pp. 20-23; and *Normandy*, pp. 19, 41-54.
27. J.L. Granatstein, *The Generals: The Canadian Army's Senior Commanders in the Second World War* (Toronto: Stoddart, 1993), pp. 22, 30, 261-265.
28. W.A.B. Douglas, *The Creation of a National Air Force: The Official History of the Royal Canadian Air Force, Volume II* (Toronto: University of Toronto Press in cooperation with the Department of National Defence, 1986), p. 631.
29. "Making Sense out of Dollars", 1991-92 Edition, Directorate of Costing Services, Chief of Financial Services Branch, Assistant Deputy Minister (Finance), National Defence Headquarters, 1991, pp. 12, 28, 38.
30. Douglas, p. 631.
31. James Eayrs, *In Defence of Canada: From the Great War to the Great Depression* (Toronto: University Press, 1967), pp. 116-117; Desmond Morton, *A Short History of Canada* (Edmonton: Hurtig, 1983), p. 173; H. Blair Neatby, *The Politics of Chaos* (Toronto: Gage, 1972), p. 33; J. L. Granatstein et al, *Twentieth Century Canada* (Toronto: McGraw-Hill Ryerson, 1986), pp. 214, 222; and Granatstein, *Generals*, pp. 17-18.
32. Granatstein, *Generals*, p. 21
33. English, *Normandy*, pp. 45, 55-56.