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“A 2½ mile an hour soldier in a 60 mile an hour age is a military anachronism. And nothing can be so costly as a military anachronism.”


Before the outbreak of the Second World War, E.L.M. Burns was by far Canada’s most important military thinker. His writings for the Canadian Defence Quarterly (CDQ) – the semi-official service journal of the interwar Canadian military – appear in almost every issue from 1924 until 1939, and include over a dozen articles and book reviews. As Bernd Horn and Michel Wyczynski argue, Burns “represented an avant-garde philosophy that promoted professional discourse, debate, and progressive thought.” His final articles in the CDQ, published just prior to the outbreak of the Second World War, “can justly be put in the same category as the writings on armoured warfare of Charles de Gaulle or Heinz Guderian.” In this regard, an analysis of Burns’ contributions to the CDQ offers important insights into his intellectual development over the course of the interwar years. From 1924 to 1939, Burns sought to stimulate the collective intellect of the Canadian military through a literary barrage exploring the uncertain future of mechanized warfare. Without a doubt, “A Division That Can Attack,” appearing in the April 1938 issue of the CDQ, marked the pinnacle of Burns’ interwar intellectual progression. The arguments he put forth garnered considerable attention from Captain Guy Simonds, sparking a debate between the two future corps commanders unprecedented within the pages of the CDQ. Yet while Simonds’ arguments appeared as part of his first contributions to the journal, the thought process by which Burns built his arguments can be traced throughout his previous writings. In this regard, by examining Burns’ military-intellectual work, one can extract a core argument which was central to his theory on the organization of mechanized forces in modern warfare: that fighting formations with a nucleus of highly mobile armoured units should be organized based upon the fundamental principles of balance and flexibility.

Burns’ writings were based on a fundamental belief that methodical thinking could help prepare soldiers for the uncertainties of mechanized warfare. In 1926, he wrote:

Of all it is hoped to do is to enunciate certain problems which soldiers will have to face in the next war. Though the massed brain power of the Canadian militia may not suffice to find solutions, at any rate, when war does come, those who have thought about the problems will be better able to face them than if they presented themselves entirely strange, bristling with the menace of the unknown.

Douglas Delaney observes that Burns struggled with one of the most serious problems of modern warfare: “how did one restore manoeuvre to a battlefield dominated by firepower?” To come to terms with this problem, Burns turned to the most recent...
developments in mechanization and armoured theory available at the time. Indeed, as Horn and Wyczynski argue, “undeniably, his thoughts were heavily influenced by the work of J.F.C. Fuller who was both a soldier and military theorist.” Of Fuller – who advocated that armour be adopted as the decisive offensive arm in modern warfare – Burns wrote, “his output of ideas seems to be unlimited. Some may be too radical, some may be fundamentally wrong, but all are suggestive, and with his central idea, which is ‘think ahead: of the next war rather than the last one, or the last dozen,’ surely no one can disagree.” Of another famous soldier-strategist, B.H. Liddell Hart, Burns stated that “Captain Hart is always lucid and readable, and the ideas he sets forth, even if they do not at once win acceptance, usually stir the sluggish cerebrum of the militaire, so that he is moved to denounce their expounder as a heretic and scoundrel, and possibly even to examine realistically his own articles of faith whose truth is impugned.” Burns drew upon the work of his British intellectual colleagues, assimilated what lessons he could, analyzed their importance, and synthesized new conclusions in relation to his own concepts of mechanization. In this way, Burns developed his own theories on mechanization, centred on well-reasoned assumptions which would allow armoured formations and their commanders to respond to a wide range of tactical contingencies.

Mechanization, and its ability to restore manoeuvre on the battlefield, was the major focus of Burns’ writing. This focus largely stemmed from his experiences in the First World War. As Horn argues, this experience “was key to his philosophical evolution in thinking about military operations.” As a signals officer and staff learner, his wartime service “entrenched in his thinking a belief in the necessity for mobility and speed as the key to modern warfare.” As Burns himself argued, “to attack successfully, the assaulting troops need all their vigour, all their vital force. If they are exhausted by struggling through mud, the drive to break through the enemy’s resistance, and more important, to exploit their gains, will not be there.” As Burns saw it, effective modern military forces depended on “a highly mobile arm, to reconnoitre, protect the slower moving masses of infantry and artillery, hold rear-guard positions up to the last moment in retreat and [pursue an enemy in] victory…” As these tasks were traditionally undertaken by the cavalry, it was this arm that Burns determined to modernize, or, more correctly, mechanize. In his first article written for CDQ, Burns stated that “we are told that it should be every soldier’s aim to make the national army more efficient. It might be argued that it is our duty to attempt to imagine something better than the cavalry, as we know it, and then to endeavour to cause our imagination to take concrete form.” For Burns, “imagining something better” called for “a machine to convey troops, which will be capable of going anywhere a horse can, and of moving at about the same speed.” Instead of shock action, these highly mobile machines were to be used as weapons for reconnaissance, flank protection, screening, and delaying action. As Delaney argues, this “cavalry machine,” as Burns proposed it, “was not a tank. It was something altogether separate, yet a necessary complement to the new tank arm.”

However, as the technology of armoured vehicles grew more advanced, so too did Burns’ thinking. Burns soon shifted his focus from “mechanized cavalry” to an emphasis on highly mobile tanks being used to destroy an enemy’s main defensive positions. The increased armour, mobility, and fire power of these machines would also allow armoured forces to push through defences and wreak havoc on an enemy’s command and control nodes, and logistic networks. These views were published as a winning response to the CDQ’s 1932 Essay Competition. Building upon his previous writings, Burns argued that “operations against the rear by a force of medium tanks (which must be accompanied by light tanks and supporting weapons) [would] be a major threat to an army.” To defend against such threats, Burns proposed the use of “mechanized cavalry” units as a protective screen “to give warning of enemy attack, to maintain contact with invading forces and delay their advance.” In this regard, a division needed flexible mobile units capable of both offensive and defensive actions.

By the time Burns wrote “A Division That Can Attack” in 1938, his theories regarding the tactical employment of armoured vehicles had been firmly established. His article was a response to the British Army’s massive reorganization of its fighting formations which took place between 1936 and 1938 and established two separate divisional structures – the mobile division and the infantry division. On the one hand, the mobile division consisted of two mechanized cavalry brigades of light tanks, one tank brigade of medium tanks, two motorized infantry battalions, and two artillery regiments. “Its purpose was to exploit through any breach in the enemy’s line and deep into his defences.” The mobile division was designed to replace the old cavalry division with increased speed, range of action, and striking power, and was to be

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**Lieutenant-General E.L.M. Burns as commander of 1st Canadian Corps in Italy, March 1944.**
employed in cooperation with other equally mobile troops. The actual breaching of the enemy’s main defensive line was to be undertaken by the infantry division. By 1938, these divisions had been reorganized to include three infantry brigades without any inherent armoured support. This support would be provided externally by the heavy infantry tanks of the Army Tank Brigade, which were to be utilized “acting independently but in tactical co-operation with the efforts of the other arms.” These tanks were to use their armour and fire power to break the crust of an enemy’s defences, “and so give to attacking infantry another, and by far the most effective means of overcoming hostile machine guns.” However, Burns believed “that the idea of separate infantry tanks, held in an army tank brigade was a ‘retrogression in tactical ideas’ and sure to reduce both the mobility and tempo of battle.”

For Burns, the major problem with the 1938 British reorganization was the creation of two separate divisions with two distinct tasks – an assaulting arm to fight the “break-in battle,” and a pursuit arm to exploit the assault in the “break-through battle.” At its root, the British Army’s reorganization flew in the face of Burns’ notions of balance and flexibility. In Burns’ mind, it made no sense to establish separate divisional structures when successful offensive operations were contingent upon the ability to assault, exploit, and defend as the situation dictated. Rather, Burns saw the “break-in” and “break-through” as one fluid operation, where a fighting formation had to be able to do both in order to achieve an offensive victory. Therefore, Burns proposed an organization “based on a balance of arms that afforded every division the ability to attack, pursue, defend, or withdraw.”

Essentially, Burns argued that tanks should form the principal assaulting arm, responsible for carrying out two core functions within a balanced, all-arms division. The first was to reach a position where “the superior power of the attacker threatens the defender with annihilation, so that he may run away or surrender.” Once a defender’s main line of resistance was broken, however, Burns argued that “the enemy will not be finally defeated until the cohesion of his force is broken up. With modern armies, this means that the defender’s artillery zone must be reached and the guns captured soon after the assault is launched.” The fulfilment of these two tasks would ultimately result in an offensive victory; to do this, offensive power had to be based on hard-hitting, mobile forces. As Burns argued, the modern defence “owes its tactical superiority over the offensive to the fact that the attacker has to expose himself in order to advance, and presents a good target to the defender who is in a carefully concealed and usually fortified position.”

However, Burns went on to argue that “if the attack gets close enough to locate the opposition properly, [the defence] can generally be overcome.” Consequently, Burns advocated the mixed tank battalion as the primary assault force, with “the medium tank as the principal engine of assault, complemented by the number of light tanks which experience has shown to be needed for reconnaissance and protection.” While the medium tank of the mixed battalion provided the means of rapidly assaulting main defensive positions, lighter tanks would provide reconnaissance and an ability to quickly pursue an enemy retreat. However, in 1937, Burns argued that “once tanks come up against a properly organized defence, they will never overcome it without strong artillery support.”

Therefore, to provide the necessary fire-support for these mobile forces, Burns proposed a separate artillery arm under centralized army control, firing on predetermined programs, with only one-third of the guns under command of the fighting formation. With armour acting as the assault and exploitation arm, Burns argued that the primary role of the infantry was “to take over, consolidate and defend the positions won by the tanks, so as to provide a solid base for a further bound.” Based on the cumulative effects of their capabilities, these four arms – medium and light tanks, artillery, and infantry – made up the composition of Burns’ assault force.

Yet Burns also took into account the defensive functions required of fighting formations, arguing that an ability to counterattack was vital. This concept was congruent with his thinking prior to 1938, in which he argued that “armoured cars [or light tanks] will generally make use of their mobility to take a wide sweep and attack the communications well in the rear. They are likely to avoid the area immediately behind the fighting troops – say for ten miles behind the front line – so as not to run afoul of numerous anti-tank weapons, or worse, enemy armoured fighting vehicles [AFVs].” Burns further argued that heavier tanks would also make their appearance in an army’s rear areas “with the intention of finally cutting the communications, while opposing infantry divisions are at grips with each other; in short, as a manoeuvre [arm] in the decisive battle.” Burns also held the concept “that given a theatre suitable for AFVs, in a war where the two armies are nearly numerically equal, but where one side has tanks and an armoured force organized for independent operations, while the other has no means of combating...”

Lieutenant-General G.G. Simonds as commander of 2nd Canadian Corps in Northwest Europe, 1944-45.
AFVs except guns and infantry antitank weapons, the side with the AFVs will win with ease.”

For this reason, Burns argued that a formation’s ability to counterattack effectively an opposing force was contingent upon its own employment of armour. For Burns, the counterattack became “the offensive in miniature; the medium tanks will fill the principal role in this, supported by the other arms.”

As such, Burns stated that “the same four categories of troops – light and medium tanks, infantry and artillery – can perform the defensive functions as well as the offensive ones.”

To give these troops the greatest degree of flexibility, Burns suggested that the cooperating arms be grouped within the division, rather than the brigade, “because the tanks will usually have a mobile role, while that of the infantry except for intervals of movements from one position to another will be static.” As the distance between mobile forces and those in stationary positions would often be considerable, Burns argued that it would be difficult for the brigadier to tend to both at once. The balanced, all-arms flexibility of a division, therefore, would allow it to perform its essential offensive tasks, while at the same time ensuring its own defensive lines were secure. Ultimately, Burns argued that “a division organized as suggested...would be practically as mobile as the ‘Mobile Divisions’ of continental armies. But it would have greater assaulting power, and could confirm by a shattering attack any strategical advantage which mobility had gained. In a defensive role it would be at least as powerful as our present division, and in the offensive, more so.”

The article “A Division That Can Attack” received immediate criticism from Captain Simonds. In the very next issue of the CDQ, Simonds wrote a rebuttal entitled “An Army That Can Attack – A Division That Can Defend.” The focus of Simonds’ criticism was not so much towards the technical aspects of Burns’ armoured formation, but its proposed organization. Simonds wrote:

Col. Burns ignores the “specification stage” and plunges into the “design stage,” the reorganization of the “line of battle” division, on the assumption that we require a division capable of taking the offensive “under its own steam.” Because he has ignored what is probably the most vital stage...he has laboured and brought forth the unwanted brain child – “A division that can attack.”

At its basic level, Simonds’ argument was that “the offensive weapons – the ‘hitting-power’ – of a British Army will be limited. The bulk of this hitting-power should be at the disposal of the highest commander who can control the battle – not arbitrarily divided between divisions in ‘penny packets.’” Therefore, Simonds argued that “the basic formation for defence should be a ‘division that can hold,’” while the bulk of the offensive elements should be at the disposal of the Commander-in-Chief to sub-alloot in accordance with his plan.

If one area of agreement could be found between Burns and Simonds, it was that both recognized the importance of striking the main offensive blow to an enemy at a single decisive point. Simonds argued that “once the requirements of security have been met for the Commander-in-Chief’s main offensive, intended to be the decisive coup-de-grace, every ounce of hitting-power should be concentrated.” Similarly, Burns argued that concentration – bringing superiority of force to bear at a decisive point – was a fundamental principle of war, one which should form the basis of a commander’s offensive plan. In 1930 he wrote, the student of war should first learn (as Napoleon did) how he can overcome resistance at a point, which will be by concentrating superior forces against the enemy at that point. Two to one? Three to one? Four to one? What must be the ratio of superiority in men, guns, tanks, airplanes or what not, to be practically sure of success? That is the question he must be able to answer. When he can answer it, he will have something to build on.

Burns also agreed with Simonds that this principle was contingent on the necessity of establishing security to prevent interference by the enemy. However, unlike Simonds, Burns seemed to have understood that in order to maintain effective security – in essence, taking away the enemy’s ability to grasp the initiative – constant pressure had to be applied to keep the enemy guessing as to where the decisive blow would be struck. This concept was expressed by another of the CDQ’s contributors, who in 1936 wrote that “concentration is not so much a matter of the collection of troops at one point but of their distribution in order to force their opponent to adopt an even greater dispersion of his strength. It is calculated distribution of force for a concentrated purpose.” On the mobile battlefield that both Burns and Simonds envisioned for the future, it stood to reason that highly mobile units would be required to apply constant pressure against an equally mobile enemy, even in times of static warfare.

As a rebuttal to Simonds’ “An Army That Can Attack – A Division That Can Defend,” Burns produced his last contribution to the CDQ before the outbreak of the Second World War, the article entitled “Where Do
the Tanks Belong?” He was critical of Simonds’ assertion that allowing an all-arms division the inherent hitting-power of an army was “penny packeting” resources. Burns noted that “the theory of centralized control of all ‘offensive’ arms in order to effect the maximum economy of force is superficially attractive, but it does not take sufficient account of the other principles of security and cooperation.”54 [emphasis in original]. He went on to argue that, in rapidly-moving warfare, when a division may have to advance, attack, retire, defend and guard in various directions in the space of a few days, it will be extremely difficult for a higher commander to distribute and redistribute his ‘offensive’ weapons in time to meet the needs of the changing situations. This is not to say that there should be no G.H.Q. [General Headquarters] reserve of such arms, but that they will probably be more effectively employed if the bulk of them form part of the normal divisional organization.55

Burns had first articulated these ideas in a 1937 article entitled “Theory of Military Organization.” Because he believed that the tactical situation in mobile warfare could change so rapidly, Burns argued that “units of the various arms must be grouped together in formations in such proportions that in co-operation they will be able to exercise the greatest total effect.”56 He went on to argue that the proportion of these units within their fighting formation must be “determined with reference to the principal or decisive arms, defined as those whose primary roles is to close with the enemy, to seize and occupy points of advantage, or to defend them.”57 [emphasis added]. By 1937, and certainly by 1938, Burns had come to regard the principal arm as the mixed tank battalion.58 His organization of these battalions into a balanced, all-arms fighting division, therefore, was in response to the flexible nature of mobile warfare as he foresaw it.

Based upon the very nature of the Burns-Simonds debate, it would appear that the tactical philosophies of the two future corps commanders differed fundamentally in regards to the offensive. While Burns saw the “break-in” and “break-through” as one fluid operation, Simonds, in his final contribution to the CDQ outside of his debate with Burns, had argued that “exploitation is hardly a part of the attack proper, but rather the advantageous use of a favourable opportunity created by the attack.”59 However, Burns’ core disagreement with Simonds’ arguments was the idea that the commander-in-chief would always have the necessary information – or the tactical or operational initiative – to ensure that “for the main offensive battle a highly centralized control may be exercised over those elements upon which the success of the operation depends.”60 Burns challenged this assumption in his rebuttal to Simonds, stating that “the theory of reserving all tanks for decisive roles breaks down when the enemy has the initiative, for it is then impossible to tell what the decisive time or place will be – until the decisive moment has passed.”61 Balance and flexibility within the division became central. It was this point which separated the quality of their arguments. While Simonds seemingly assumed a greater level of situational awareness for the army commander than was possible at that time, Burns considered one of the fundamental tenets of warfare: that the enemy always has a “vote.” Therefore, as one of his most significant contributions to the CDQ, Burns proposed a divisional organization based upon a grouping of capabilities – light and medium tanks, infantry, and artillery – which would yield to army commanders the flexibility needed to respond to a wide range of battlefield contingencies. In this regard, Burns defended the core argument that all-arms fighting formations with a nucleus of highly mobile armoured units should be organized based upon the fundamental principles of balance and flexibility.

Notes

2. For a good account of mechanization and CDQ before the war, see Jamie W. Hammond, “The Pen Before the Sword: Thinking About ‘Mechanization’ Between the Wars,” Canadian Military Journal 1, no.2 (Summer 2000), pp.93-102.
7. Throughout the late 1920s and 1930s, the British Army continually trained and tested various organizations of armoured and mechanized forces. As Jamie W. Hammond argues, “apart from the few Canadian officers who attended Camberley [Staff College], or were fortunate enough to view British exercises, the only knowledge of this training came to Canadian officers through the interpretations which appeared regularly in the CDQ.” See Hammond, “The Pen Before the Sword,” p.99.

11. Major E.L.M. Burns, MC, RCE, “The Remaking of Modern Armies: A Review,” Canadian Defence Quarterly 5, no.1 (October 1927), p.115. Many other contributors to the CDQ looked to British military theorists for inspiration, not only for the substance of their arguments, but for their ability to stimulate thought regarding the future of modern armies. In a review of The Future of Infantry by Captain B.H. Liddell Hart, the CDQ’s editor, Ken Stuart, emphasized some of the Liddell Hart’s key points regarding mobile warfare. He wrote that even “light infantry, fighting dismounted, cannot replace the need for a modernized cavalry ‘because they cannot strike quick enough or follow through soon enough’ because they cannot strike quick enough or follow through soon enough’ for decisiveness in battle. Hence the need for a ‘tactical arm of decision,’ which our author [Liddell Hart] would provide in the proportion of one mixed tank brigade for every two infantry brigades.” Like Burns’ proposed armoured organization, these “mixed tank brigades” were composed of light and medium tanks in various configurations. See Stuart, review of “The Future of Infantry,” by Captain B.H. Liddell Hart, Canadian Defence Quarterly 10, no.3 April (1933), p.374.


15. Ibid.

16. Ibid.


18. In 1932, the CDQ held its annual Essay Competition with the aim of stimulating discussion regarding the dangers posed to rearward services by highly mobile armoured forces. The first Essay Question – open to both Permanent Force and Non-Permanent Active Militia contributors – asked competitors to “discuss the problem of protection of headquarters and the rearward services of a field force in modern war, and, keeping in view the financial limitations posed on military expenditure in peacetime, outline your suggestions as to the means by which the protection of these vital links of army organization can be secured.” See “Canadian Defence Quarterly Essay Competition, 1932: Subjects Selected for the 1932 Essay.” Canadian Defence Quarterly 9, no.4 (July 1932), p.543.


24. Delaney, Corps Commanders, p.66.


27. Delaney, Corps Commanders, p.66.

28. Ibid.


30. Ibid.

31. Ibid., pp.286-287.

32. Ibid., p.287.

33. Ibid., p.292.

34. Ibid., p.293.


37. Ibid., p.293.


39. Ibid., p.299.


42. Ibid., p.294.

43. Ibid., p.295.

44. Ibid., p.296.


46. Ibid., p.415.

47. Ibid., p.417.


52. Ibid., p.174.


55. Ibid.


57. Ibid.


60. Simonds, “An Army That Can Attack,” p.415. These views were further discussed by Simonds in his final contribution to the CDQ outside of his debate with Burns. Simonds wrote that “if it is essential to the commander’s plan that the hostile covering forces be driven-in quickly, then leading formations must be reinforced with infantry tanks and senior commanders must be well forward so that they are able to make an early decision as to where the enemy position is to be broken and concentrate their artillery and tanks to break it.” See Simonds, “The Attack,” p.389.

Dear Sir,

Antonia Weetman’s article “Dieppe from a German Perspective – German Second World War Art in the Collection of the Canadian War Museum” (Autumn 2012) provided a refreshing view of some of the imagery associated with that fateful raid. I was particularly impressed with the way in which Franz Martin Lunsworth’s artwork “German Soldier Rendering Aid” and “Carrying the Wounded” had captured the fine details of the uniforms and equipment and how Wilhelm Strauss recorded the recovery of a disabled 40-ton Churchill tank off the Dieppe beach by two German 18-ton Famo halftracks in his work “Destroyed Tanks Being Salvaged.”

It is uniform details that also reveal that P.K. Muller-Gera’s carbon, pencil and ink on paper work “Prisoners of War Guarded by German Soldiers” is not from the Dieppe Raid. The POWs in this artwork are clearly wearing bush jackets as opposed to battledress Tunics which places the subjects of the artwork in the Mediterranean Theatre rather than Northwest Europe.

Bush jackets were a light tan or khaki drill coloured cotton garment that was designed for wear in hot climates. These jackets incorporated both chest and waist pockets and were not authorized for wear in the United Kingdom or Northwest Europe. They were worn by Commonwealth forces in North Africa and throughout the Sicily and Italian campaign. Canadians were issued this type of uniform for the invasion of Sicily in 1943, the same year in which Muller-Gera’s work is dated.

Battledress, on the other hand, was a khaki drab woollen garment that was designed for year-round wear in the United Kingdom and Northwest Europe. Easily recognized, this short, waist-length tunic with only two chest pockets was considered both fashionable and practical having been based on contemporary ski clothing. Franz Martin Lunsworth, “Carrying Wounded” on page 51 clearly shows the details of the battledress on the Canadian POWs.

An accurate analysis of military materiel can add to our collective understanding of military events and how they have been recorded.

Sincerely,
Ed Storey,
Nepean, ON