

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

Chapter I

FEATURES AND FUNDAMENTALS

Part I. THE FEATURES OF MODERN WARFARE

The principles of war are eternal, but the factors with which they have to deal are undergoing an incessant evolution. von der Goltz.

I. Introduction

The features (or factors as von der Goltz calls them) of modern warfare are the effect of certain causes, which can only be fully understood when they are put in a historical setting. War, indeed, is destructive in its purpose and wasteful in its results, and therefore as an ideal utterly irrational.¹ None the less, as an activity it is severely rational, and if we do not understand its evolution, we shall be incapable of appreciating the significance of its present features and the way in which the 'eternal principles' have to be applied to new conditions. The principles of war concern certain fundamentals, which apply to all war, ancient, medieval and modern. But they have to be adapted to the features of the warfare with which they are concerned. The features are the conditioning environment, the principles the central core. In final analysis these principles are the rationalized response of the human mind to an environment which is under constant change as the result of inventions and new technique. From this it follows that the principles of war, however immutable, must constantly be re-examined

¹ War, however, acts as a mental stimulus and draws into its machine large numbers of scientists, inventors and others who, in normal times, are engaged in peaceful activities. These, with the financial and other assistance which war places at their disposal, produce technical improvements and material output at a pace unknown in peace. The increased tempo of war is of value afterwards, the great advance in mechanical transport both in the air and on land after the last war being a case in point. Furthermore, in spite of the waste of resources which war involves, it does stimulate the desire for, and perhaps even the progress of, social reform. It has been a factor in the great advance in social services of all kinds, with the resulting betterment in the housing, health and living conditions of the people. But, of course, these results cannot be expected to ensue, if war among the great nations becomes endemic.

Cambridge University Press
978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles
Lectures on Military History for 1942
Major-General G. M. Lindsay
Excerpt
[More information](#)

and re-applied to the new environment. A man might know exactly the geography and sequence of a dozen major campaigns, but unless he grasps the big ideas running through all wars, he will flounder in detail and be no wiser for his knowledge. Indeed, it may be a positive handicap to him; for it may cause him to rely on weapons and devices which once were serviceable, but now are out of date. This is a particular danger for the peace-loving democracies; because when they have emerged from a war, they hate the memory of it so greatly that they put it from their minds as a thing they have finished with for good. Then, when they are dragged into another war, they are called upon to put on old garments which are moth-eaten, or new garments which as yet do not fit. So much is this the case that one might almost add to the features of modern warfare the probability that, though in the end the democracies may win, at the outset they will lose ground. It was so in the Great War of 1914–18, it is so in the Greater War of to-day. It is a method which is terribly expensive in human life and treasure, however innocent and in a sense praiseworthy the original motive may have been. But it is no use crying over spilt milk. I mention it only to make you realize the magnitude of the task before us.

You, the members of a great University, whether you are in uniform or plain clothes, must be a great thinking factory for the fashioning of a new mental armour. For to re-study and re-think is as important as to re-arm. In peacetime you have your two great divisions of study, each with its own technique—the humanities of literature, history and philosophy: the sciences of mathematics, physics, chemistry and the like. These in wartime should become what I may term the tactical and technical sides of your war effort.¹ Both sides are of equal importance. Indeed, the efficacy of each depends on the one keeping step with the other. It is wrong to suppose that during a war there is no time for historical thinking. We can decide neither the organization nor the tactical role of any machine unless we place it in its historical setting: we cannot arrive at the correct tactical or technical application of the machine unless we understand its evolution, or if it is a new machine, the evolution

¹ Cf. Peter Kapitza, F.R.S., in *Soviet War News* (3 March 1942): 'Soviet botanists are devising camouflage corresponding to seasonal changes in flora. Soviet historians are helping to fight the brazen pseudo-scientific Fascist propaganda.'

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

of the *idea* which gave it birth. Thus much for the relation of features (or factors) to principles and the need for a historical approach.

2. The Main Features

(a) MODERN WAR IS WORLD-WIDE

One war kindles another till the whole world is ablaze. Every part of the world is now in close communication, linked together by wireless, cable, aeroplanes, railways, steamships and motor transport. The world is interdependent as never before, and once major war starts it draws into its vortex one country after another until only a few quasi-independent neutrals are left. War on this scale involves high strategy: strategy involves geography. Maps are of two kinds, physical and political; and a political map is the product of history. Why is the North Atlantic the lifeline of England? Why are Egypt and the Suez Canal the key points of our operations in the East? The reason is that we are an island empire and that these two theatres are on the base line of that empire, along which it is fed and reinforced. As an island without an empire, we could make no resistance in depth, for we have not the space in which to do it. That is why command of the sea has been so important for us and why the Navy has been the senior arm. This base line existed in embryo in Napoleonic times. The West Indian waters then were what the North Atlantic is now. The route to the East was around the Cape, but the importance of the Mediterranean was realized; and in this sea at either end, at Trafalgar and at Aboukir Bay, Nelson won for us the victories which gave us command of the High Seas. When the Suez Canal was opened in 1869, the base line ran direct down the Red Sea to India and beyond.

In the War of 1914-18, with the German fleet in being and Turkey on the enemy's side, the Battle of Jutland and Allenby's victories in Palestine kept the whole base line open. In the present war the Atlantic patrol and the Libyan campaign are the counterpart of Jutland and Palestine, of Trafalgar and Aboukir Bay. The new feature is the emergence of the Pacific as a major theatre of war, consequent upon Japan's declaration of war upon us and the United States. This caused major war to span the world. What the Suez and the Indian Ocean are to us, the Panama and the Pacific are to the United States. In 1939 none foresaw the quick and

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

complete collapse of our principal ally, France. This by its exposure of the Mediterranean route has gravely impeded our operations in the Middle East, compelling us to use the old round-about route alike for munitions and troops. A hostile or severely neutral South Africa would have made this barely possible, but South Africa played her part nobly and enabled us to link our effort with that of herself, of India, of Australia and New Zealand.

The immediate implication of world-wide war to-day is twofold. First, Britain with Canada in her rear, and the Middle East with India and Australasia in its rear, must depend to an increasing extent upon themselves for munitions as well as for men. Secondly, America, being in the War, is now at one with us in a sense that no neutrality, however benevolent, could have permitted. Her forces in Britain and Australia emphasize this fact.

The present situation throws into even greater relief the historic importance of the Suez area—Egypt, Sinai, Palestine. Its importance to anyone who essays to hold empire east and west of this area has been considered paramount from the days of the Pharaohs and the Great Kings onwards. That is why Palestine has been called the cockpit of Asia and why the route followed by Allenby's Cavalry in their advance through the Musmus Pass has been described as one by which from time immemorial 'the caravans of peace and the cohorts of war' have moved. To-day the Suez area is a nodal point of communications, a centre of supply of oil and other war material, a bastion between Europe and our Eastern Empire. Lose it and the Axis fleets join hands in the Red Sea, India is isolated, and contact with Australasia is severed. Thus its historical importance is confirmed and the necessity for its retention is emphasized.

(b) MODERN WARFARE IS MECHANICAL

The Napoleonic War was the first great war to be fought within the era of modern industrialism, but the technique of industrialism was then too new to affect significantly the course of it. Ordnance, indeed, was improved, monetary outlay, consequent on greater commerce, was on a scale hitherto unknown, but at sea it was still a war of wooden ships and sail, and on land it was, as of old, a warfare of manœuvre with cavalry and infantry as the dominant arms. The most significant technical development was the specialization of artillery into a separate arm, employed in mass, with

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

tactics appropriate to such a conception; and it was Napoleon who showed the way here.

By the Great War of 1914–18 the position was greatly changed. The Navy was fully mechanized. The Army, which began the war with only a small contingent of mechanical transport, gradually built up a vast amount of such transport in addition to the true mechanization represented by tanks, armoured cars, motor machine-gun units, etc.¹ The Cavalry, indeed, used their mobility with success in Palestine and to a small extent elsewhere, but on the main Western Front the entanglement of barbed wire, trenches and mud, together with their vulnerability to machine-gun fire, rendered them practically ineffective in their normal role. The Infantry, therefore, had to bear the brunt of the effort in attack as well as in defence. New tactics were worked out by the Artillery and the Machine Guns (which had now emerged as a separate arm intermediate between the Artillery and Infantry) to assist the Infantry in their task of breaking through the trench system. Thus was developed the preliminary bombardment and the creeping barrage, in which the Machine Guns shared. New eyes were given to the Infantry by the use for the first time in warfare of the aeroplane, which in four years developed from a problematical novelty to a reliable and indispensable agent of war. Communications by telephone and wireless underwent a similar mechanical revolution.

The practical consequences of all this new mechanism were profound and may be summarized thus:

(i) The Infantry took on new tasks. To their normal equipment of rifle and bayonet they added the hand and rifle grenade, the light machine gun, the mortar, and at times the dagger, club and pistol of trench raiding parties—parties which were the forerunners of the Commandos and Guerrillas of to-day.

(ii) The work of the several arms in conjunction required increasingly elaborate organization. Hence the set-piece attack, the rehearsal of such attacks, the emphasis on synchronization.

(iii) The supply of an army or armies attacking on a wide front became an increasingly heavy task. Artillery and Machine Guns putting up continuous screens of fire expended an unprecedented amount of ammunition.

¹ For detail of the mechanised component see pp. 19, 28–9, 49, 52.

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

6

FEATURES AND FUNDAMENTALS

The task of delivering supplies of all kinds to the fighting troops absorbed transport facilities to an ever greater extent. On wet ground the effect of a prolonged bombardment was to convert it into a sea of mud, which defeated, or at any rate conflicted with, the object of the bombardment, namely to permit of an advance over and beyond the trench system. The result was an impasse, which apparently was a genuine impasse: and the consequence a war of attrition in which at enormous cost in human life the man-power of one side exhausted the man-power of the other. But the impasse was only apparent. For there was a solution; namely the tank, a British invention, a moving fortress of fire-power, which could not be mown down, as waves of infantry were, by machine-gun fire. On this, which has been my study for the last twenty years, I shall have much to say later.

(c) MODERN WARFARE IS TOTALITARIAN

The meaning of totalitarian war is not simply war as conducted by the totalitarian powers, but war in which the whole effort of the country, its human as well as its material resources, its civilian as well as its armed services are simultaneously and fully engaged. It is thus war on two fronts, military and civil; and the totality of the effort is well expressed in an extract from a recent bulletin.

‘I liken the war effort to a triangle, the apex of which is the fighting forces, the base of which represents the ordinary population of the country. If the base of the triangle should disintegrate, the apex will fall to the ground.’

When Germany, following standard routine, suddenly declared war without provocation on Russia, there were those who thought that the episodes of the West in 1940 would be repeated in the East in 1941; or at any rate that even if Russia did fight hard, she would be finished in a couple of months. Now, no one will deny that from a military point of view Germany gained great initial victories over Russia, but equally no one will deny that she failed to gain a decision. The triangle still holds, the apex as well as the base; and the sources of Russia’s stalwart stand were these.

(i) She had the breadth of territory in which to resist with all the arms at her disposal, and on which to offer a cushion of resistance in depth. In addition she had the almost unlimited

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

FEATURES AND FUNDAMENTALS

7

man-power which enabled her to plan her defence in the greatest depth and at the same time to supply the troops required for those constant counter-attacks, on scale both large and small, which are essential features of the defence against the German armoured offensive. She was therefore never forced into the luckless position in which we found ourselves, first at Dunkirk and then at Crete.

(ii) She had unity within herself as the result of her drastic revolution. She was purged of her fifth columnists, i.e. of the people who in Western Europe were concealed in the base of the triangle and by their treachery brought the apex down.

(iii) She had already adopted, almost as a God, the machine spirit. She had mechanized and integrated her industries and agriculture. In Tsarist days she had given little evidence of this aptitude, and in making the change she imported the technique and technicians of Germany, England and America. But she carried it through to the logical end, so that now she is able not only to replace her lost industrial areas by organized evacuation at high speed to points further east, but also to take over and make full use of tanks and planes delivered from Britain and America.

Thus equipped materially and morally Russia carried out with success the two most difficult operations of war. First, she conducted a retreat over hundreds of miles in face of many heavy defeats and yet maintained her army intact with its morale high. Secondly, she launched her big counter-offensive just at the moment when the enemy, with his communications stretched almost to breaking point, had launched his all in a last unsuccessful effort. Thereby she forced the Germans into an operation not of their own design, namely to disengage and to turn from the strategic offensive to the defensive on a huge front and under climatic conditions for which it appears that they were not prepared.

The position of Britain in totalitarian war is that, just as in 1914-18, all her resources are being devoted to the war by land, air and sea, and these resources, in association with those of the Empire and the U.S.A., are being employed on a series of foreign fronts. In addition, in the present war, hostilities are closer to our midst, even though for the time being our overseas fighting is

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

much farther away. In this war Britain became the headquarters of the anti-Nazi front, and incidentally to this the fortress aerodrome, the main base for air and sea attack on Germany. The preservation of this island is not simply a matter of self-defence for Britain. It is the fundamental condition of ultimate victory for all freedom-loving peoples. The defence is both civil and military, and the two must be co-ordinated in the total defence if we are to make ourselves secure against invasion, air-borne or sea-borne, and aerial bombardment. The civil effort is conducted under conditions that approximate to those of a campaign. In the late war, apart from spasmodic Zeppelin and air raids, England was outside the war zone, except for the rumble which at times reached her of the incessant gunfire in France. Now she is in it, or rather under it. For the sky is filled at all hours of the day and night with our aeroplanes in operation or in training. The Battle of Britain was fought over our heads. Many of our great towns have been heavily bombed and severely damaged; and though we have not yet been invaded, we have to be on the constant alert against it. If invasion comes, the serious task awaits us of re-arranging ourselves within our narrow island limits in such a way as to continue production and fight the enemy at one and the same time. The black-out, night bombing, fire-watching, and other things impose strains and duties which make 'business as usual' impossible, even if we were minded to have it so. Without intensive preparation on the civil front we cannot hope to crush an invader; and without the closest collaboration, before and during the emergency, between civil and military defence we cannot hope for success.

(d) MODERN WARFARE IS LIGHTNING WAR (BLITZKRIEG)

This feature in a manner sums up the others. Like world-wide war, it is here, there and everywhere, descending like a bolt from the blue. It goes to war before it declares war. Japan gave the most outstanding example of this: hers was the Blitzkrieg in perfection. As a type of mechanical war, it is a realization of the possibilities of the internal combustion engine installed in an armoured tank or aeroplane, and thereby creating war in new dimensions. As a part of totalitarian war, it strikes at moral as well as physical resistance; the fifth columnist is one of its weapons. It employs infiltration both in the political and military spheres.

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

FEATURES AND FUNDAMENTALS

9

Its battle tactic is the delivery of a sharp irresistible thrust, followed by intensive exploitation of the gap created. It searches for soft spots, and these found it rolls up resistance on either side by a fan-like spreading out. The armoured machine leads, unarmed humanity follows.

The purist may object to the use of a German term, but for this there is good reason. The surprise of the late war was the early stage at which a warfare of manœuvre was frozen into trench warfare along a continuous system stretching from Switzerland to the Belgian coast. The weapon which more than any other was responsible for this was the machine gun; and the Germans having realized its characteristics employed it to the full. They became machine-gun minded; and being so minded, they realized the importance of a land arm like the tank, which removed the machine gun's invincibility. Hence, on the basis of the tank they erected a method of warfare which from the lightning nature of its thrust they called *Blitzkrieg*. It was, moreover, congenial to German ideology; for its sudden thrust of sharp brutality upon the weak spot had its parallel in Nazi methods of rule, and its emphasis on attack restored the old belief in its superiority, which the war of 1914–18 had shaken. In fine, it regenerated in a new medium their classical military teaching.

The handling of a novel master weapon requires preliminary rehearsals under conditions which are a real test. These the Germans obtained by intervention in Spain on the side of Franco, and it was real, even though small-scale, warfare. The Russians, although they fought for the side which lost (though not for lack of courage), learnt in the same way; and when Germany attacked them later, they already had practical knowledge of the *Blitzkrieg* and what it involved. It was not only the many millions of Russia and the vast areas of Russia which enabled them to fight back so magnificently; it was also their new solidarity of social life, in association with their awareness, through previous training and practical contact, to the realities of the situation. She had early, in fact soon after the late war, developed warfare on the political front, as a preparation for military action; while her army had developed tank warfare and the use of air-borne troops. Thus she was prepared both mentally and materially to meet the new German war machine.

Cambridge University Press

978-1-107-41884-4 - The War on the Civil and Military Fronts: The Lees Knowles

Lectures on Military History for 1942

Major-General G. M. Lindsay

Excerpt

[More information](#)

3. The Interdependence of the Military and Industrial Efforts

Later we shall follow the Blitzkrieg on to the battlefield, where the emphasis will be on that side of the time-factor which relates to suddenness. But complementary to this is another aspect, namely the length of time which it takes for the mass production of the instruments which the Blitzkrieg employs to come to full effect. For modern mass production, whether for peace or war, is indirect and roundabout. We do not notice this in peacetime, because then the flow is quiet and continues what has gone before. But war with its new demands brings it into violent relief. First we must build new factories and make the appropriate machine tools. Then we must make the ordinary machines which make the final product. Parallel with this chain of operations is the long interval between original design and full production. Henry Ford's name is associated with this feature of modern industry in its most standardized aspect: we speak sometimes of the Fordization of industry. By 1918 industry had gone a long way in this direction, for we were then in the fourth year of war; and war forces the pace of industrialization.¹ Why were we able in 1918 to replace in a few days the heavy losses of material which we incurred in the final German thrust of March 1918? Because by then and not before we had come into full production. Powers which prepare for war beforehand, which live in a state of 'near war' before they launch into full war, secure an advantage here. For they declare war only when they have got, if not into maximum, at any rate

¹ This was true in different ways of the Crimean War, the American Civil War and the Franco-Prussian War of 1870. The demand for heavier cannon in the Crimean War attracted the inventor Henry Bessemer into the iron industry, and the speedy outcome was Bessemer steel in 1856, the birth year of the age of steel. The demand of the Federal armies for food and transport stimulated railway building and the introduction of labour-saving machinery, especially in agriculture. Canned foods and condensed milk appeared as new industries. In fact, that war may be said to have precipitated America into modern industrialism. The mitrail-leuse of 1870 was the first chapter in the history of automatic fire-power: the Vickers machine gun, as finally developed, constituting, both in the fire-power which it delivered as well as in the mode of its construction, a perfect example of the unvarying, standardized, mass repetition so characteristic of modern industry. Similarly in the years before 1914 naval armament both in Britain and other countries stimulated, and was stimulated by, technical progress in metallurgy and mechanical engineering.