The birth of the modern style of warfare in the Great War - Defence Viewpoints from UK Defence Forum
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Between 1917 and 1918 a military revolution took place which was the most significant development in the history of warfare to date, and remains so. It amounted to the birth of what might be termed the Modern Style of Warfare with the advent of 'three dimensional' artillery indirect fire as the foundation of planning at the tactical, operational and strategic levels of war. This was indeed so revolutionary that the burgeoning of armour, airpower and the arrival of the Information Age since then amount to no more than complements to it – incremental technical improvements to the efficiency of the conceptual model of the Modern Style of Warfare – and they are themselves rather its products than its peers.

This Military Revolution had technological, tactical but most importantly conceptual components and that while elements of these already existed before the First World War, it took the shock of war to act as a catalyst for change. From the solution to pressing tactical problems emerged the unforeseen possibility that the new techniques of deep attack might create a new operational paradigm.

Equally, as the means of prosecuting deep battle have become ever more sophisticated, so the logic of the Modern Style of Warfare has encroached upon and now dominates the strategic level.

The Modern Style of Warfare may be said to have the following characteristics:

- It takes place over an extended area and is three dimensional.
- The importance of time is critical to it, in the sense of 'tempo' (relative rate of activity), and simultaneity. These help to outpace and overload the decision making capability of an opponent.
- Intelligence is the key to targeting.
- The capability exists to hit high value targets accurately throughout the enemy's space, separate from or synchronised with the contact battle.
- The application of firepower is measured to achieve specific types of effect.
- Command, control and communications (C3) systems and styles of command which succeed in fusing these characteristics can break the enemy's cohesion and will with catastrophic consequences.

Translated to battlefield planning, a simplified example in the offence might look like this:

- Information about enemy dispositions is gathered by aerial, electronic, acoustic and optical means.
- This is transformed into intelligence about enemy intentions and potential targets throughout the depth of the enemy positions.
- A plan is made to achieve a rapid penetration or breakthrough by manoeuvre forces, neutralising or destroying the enemy in their path and throughout the depth of his battle space.
- The fireplan creates shock and maximum dislocation, presenting the enemy with so many problems at once that his C3 system is unable to react effectively. It is synchronised with air operations and the manoeuvre scheme to achieve synergies of effect. The fireplan attacks enemy headquarters, communications systems, artillery, logistics, bridges and depots. It blinds enemy observers, destroys strong points and field defences. It attacks enemy positions in depth, especially the enemy reserve before it can join the contact battle, sealing off the battlefield and harrying any who fire. At the same time it provides close support to the manoeuvre force as it advances on its objectives.
- The weight of fire is carefully measured according to the neutralizing or destructive effects required, and the duration judges according to the shock effect or steady erosion of morale that is desired. Different types of ammunitions and rates of fire are selected to achieve these.
- All of this is accomplished by ruses and deceptions, including a complete dummy fireplan if necessary.
- The planning for this operation is conducted at high level under centralized command, but measures are undertaken to make the plan responsive to the unexpected that will inevitably occur.

This generic model is readily recognised. It would be familiar in the doctrine of NATO and Warsaw Pact armies of the Cold War. It resembles the Egyptian crossing of the
Suez Canal in 1971 and more recently is evident in the minds of planners in the Gulf and Iraq Wars. It is also the blueprint for battle as tested by the British Army at Cambrai in November 1917, but seen in more complete form in the German offensives of Spring 1918, the Kaiserschlacht, and the Allied offensives later that year. Many of the characteristics of the Modern Style of Warfare listed above are not in themselves 'modern'. The importance of time, knowledge of the enemy, superior firepower and the role of decisive manoeuvre have always been understood by commanders. Equally the tactic of penetration, inducing shock and disintegration is as old as warfare. It was used by Alexander at Gangamela in 331BC, the Duke of Marlborough at Blenheim in 1704 and Napoleon at Austerlitz in 1805. But there came a point in time when technology permitted, and tactics demanded, that these characteristics be brought together in a novel, three dimensional, 'modern' concept which was truly revolutionary. That time was 1917-18. The key innovation was the creation of a new approach to warfighting founded on indirect fire. This was made possible by a variety of technological developments and startling originality driven by strategic necessity. Almost a century later we know this model of 1917 as our own style of warfare, but in 1914, a mere three years earlier, it would have seemed entirely unfamiliar. Warfare in 1914 was a linear affair, with prevailing doctrines emphasising flanks, envelopments and annihilations. It was based on the contact battle of physical encounter, with masses of infantry and cavalry manoeuvring, supported by artillery firing directly, generally at short range, with guns deployed in the open. While the few aircraft could carry out reconnaissance, there were no means of locating targets in depth and only the relatively few howitzers in service were capable of engaging targets in dead ground. Adjustment of fire was primitive and generally estimated on the gun position itself. Communication with observers was by means of limited numbers of telephones, semaphore or megaphone. In the case of the British field army, at the outbreak of war almost all artillery ammunition was shrapnel. There was no means of supplying large quantities of artillery ammunition to manoeuvre forces in the field, and partly in recognition of this fact there was very little ammunition. Artillery planning did not exist at the operational level, except in siege warfare. The British Expeditionary Force (BEF) had no artillery above divisional level. Operations were so straightforward it is not surprising that there was no need for large artillery planning staffs. Indeed, given the purely tactical operations envisaged for artillery, centralised high level command would have been ineffective and unresponsive to the needs of the moment. Clearly between 1914 and 1918 something extraordinary historical profundity and enduring military significance had happened. It was the indirect fire revolution and the birth of the Modern Style of Warfare. The concepts of this paper are explored more fully in 'Field Artillery and Firepower' by J B A Bailey which is available on Amazon.