War forged the world, as a blacksmith working iron. Throughout human history, and still today, men have been waging battles in ways that have changed over time, but skill and power have always been, and still are, essential elements. Early in time, theorists have tried to rationalize war. Some failed in doing so and were obliterated by time, but others succeeded and became known and revered still today. Besides their theories, it is also in the study of campaigns and wars from the past that lays the possibility to learn for the future. Whether by influence of the epoch, context, or leader, armies have always had a tendency to operate according to certain principles and showed evident personality or characteristics.

The link between the operational level of war, as we know it today, and the extended battlefield, in which armies maneuver nowadays, is obvious. From the small and limited grounds of the past, where knights and infantry maneuvered for a decisive termination as a result of a single battle, the battlefield expanded deeply into enemy territories and simultaneously into different theatres of operations. To add, the ultimate warfare model had the decisive battle replaced by a decisive campaign. To accommodate this template, logistics, and therefore sustainability, gained increased range and special relevance (Guseiken, 2005: 4).

This magnitude of operations aroused the need for detailed planning, and improved organization, which could provide the commander with adequate ways to influence the course of events across the battlefield. In fact, this operational level of war links the tactical employment of forces to national and military strategic objectives (JP 3-0, 2006: II-2).

While the former usually provide effects of a transient nature, the latter are long lasting and have even a political nature.
According to Clausewitz, in order to plan and conduct a campaign successfully, the general has to be talented with *military genius* (Clausewitz, 1873: Book 1, Ch3). Such a perspective is deeply embedded in today’s concept of operational art, that is, “the application of creative imagination by commanders and staffs - supported by their skill, knowledge, and experience - to design strategies, campaigns, and major operations and organize and employ military forces” (JP 5-0, 2006: IV-1). It is on operational art, and in the assumptions therein included, that Commanders materialize their attempt to overcome the fog of war.

Eventually, not all models of operational art were equally successful as they proved different strengths and weaknesses when tested on the battlefield. In fact, while technology lent strength to some models of operational art, it also revealed their weaknesses when they ignored the context, and assumptions disregarded intelligence prevailing over reality. To explain this statement, this paper will address the models of operational art adopted by European and American military, from Napoleon Bonaparte to AirLand Battle and John Warden, exposing their strengths and weaknesses. First, it will analyze the Napoleonic campaigns and their influence abroad; second, it will focus on Mahan strategy for the command of the sea; next, it will address the First World War; and finally it will center on the AirLand Battle model and on the subsequent air theorist John Warden.

The strength of Napoleon’s armies resided in the way he understood the era in which he was living. Napoleon deeply integrated the French Revolution in its strategies. He embodied a country in revolution, not only in ideals but also in warfare. This revolution in warfare evolved from his deep trust on the outcomes of the employment of mass armies, the pursuit for total victory, and the rejection of limited and non-decisive wars (Paret, 2006: 141). This approach was designed to guarantee the fast movement of his armies towards the objective, and to the extent possible, minimize attrition before the conclusive engagement with the enemy.

Naturally, this was only possible because Napoleon played both the role of national leader and military commander. Accordingly, allocation of resources was never problematic in a country mobilized to war. Moreover, it is known that a victory abroad, when associated with the charismatic traits of a leader, often translates internally in terms of popularity and political gains (Hanson, 2010: 8).

What Napoleon had different from other leaders was the fact that his strategies were “attuned to the possibilities of his age, and for some years succeeded in exploiting them fully” (Paret, *op. cit.*: 141). He was also able to take advantage of the technology he had available, making full use of artillery mobility and increased firepower (Weigley, 1973: 79).

To be decisive, the military strategy as Napoleon conceived it, required the maximum concentration of force in each battle. Initiative, offensive, movement, and concentration of force were essential to gain the momentum that could, and for the most part really did, drive the army to victory. If this strategy stood out as a strength, it nevertheless included weaknesses, as friction and attrition came into play. The invasion of Russia, today understood as an error, laid bare some weaknesses of the Napoleonic strategy. In the progression to Moscow, the slow destruction of his army along the way undermined the mass effect that it could have achieved. At the same time, in such an
extensive campaign, communications became more and more difficult, leading to a decline in Napoleon’s ability to command effectively his army (Paret, op. cit.: 137).

Accordingly, but in a different scenario, insurgency in Spain exposed some weaknesses of the Napoleonic framework, as his army was never able to achieve complete victory. “Even military geniuses find that consolidating and pacifying what has been brilliantly won on the battlefield proves far more difficult than its original acquisition” (Hanson, op. cit.: 6).

Much to the influence of Jomini\(^1\), during the American Civil War military leaders were clearly looking for inspiration in Napoleon’s achievements (Weigley, op. cit.: 82). Clearly, they focused just in Napoleon’s victories and not in his defeats. What they failed to understand was not only the different context in which they were fighting - unlike France, the nation was not mobilized against an external enemy - but also because of the technological advances in place. The increase in the rifle’s range posed a real threat to artillery units like Napoleon used to employ them, and the train gave mobility a new meaning and dimension. As a result, timeworn strategies were not successful and casualties became colossal.

The Nineteenth Century was fertile in warfare theorists. Alfred Thayer Mahan was one of them, and again Jomini was influential in how his thinking evolved, to a point that some saw Mahan as the naval counterpart of that military thinker (Ibid.: 173).

Mahan envisioned the sea as the new battlefield and, in his beliefs, the purpose of naval strategy should be to gain its control (Ibid.: 175). Moreover, navies should take the role that armies had had until then. Because Mahan saw war as business - Clausewitz (1873) before him made the same comparison, because of the conflict of human interests it represents - to obtain the sea control, it was vital to ensure the free use of lines of communication and possess decisive geographic points (Weigley, op. cit.: 175).

It is a fact that navies were then evidently strategic instruments, with global reach, and that fact could represent a strength of this model. However, Mahan did not acknowledge the advances in technology that could challenge the control of the sea and render it impossible to obtain. At that time, torpedoes, mines, and submarines, existed already but he ignored them, as he did not embrace the need for faster ships (Ibid.: 180). Mahan also failed to realize the difference in context, as he focused on the British example and tried to apply it elsewhere (Ibid.: 178). As a result, a weakness of this model was the fact that by advocating expansion to obtain the command of the sea, he was involuntarily favoring dispersion and not concentration of forces.

In face of the new improvements in communications, transportation, and armament during the First World War, Europe saw a shift in the way that armies clashed on the front line. It is commonly accepted that the industrial revolution reduced friction in war. Innovations like the railroad and the telegraph made it easier not just to mobilize and move armies, but also to control and communicate across the battlefield (Rothenberg, 1986: 300). However, the search for a rapid victory for Germany, as envisioned by

\(^1\) Unlike the Prussian theorist Carl von Clausewitz who was an abstract thinker, Antoine Henri Jomini, of Swiss origin but flag officer both in the French and Russian armies, stated that despite all the possible changes in the nature of war, there were a number of principles that could apply in any circumstance. Rather than the genius of the commander, Jomini advocated a scientific approach to war planning and practice (Shy, 1986: pp 143-153).
Alfred von Shlieffen (*Ibid*: 312) did not succeed\(^2\). Instead, WWI became a war of attrition.

Despite all the improvements that technology made possible, the German leaders were too optimistic about the speed they could achieve when moving their armies throughout the French territory. The assumption that it would be a fast operation faced the reality of the trench warfare. Against static machine guns, the French army rediscovered artillery, and against the massive casualties, they found motivation and national pride. Also, airpower, still a new player in those days, started to show the characteristics that would influence so many to articulate promises of relevance and decisiveness in future conflicts. The principles of the offensive and rapid movement generally stand out as dogmatic truths in what concerns to military strategy. Nevertheless, critical assumptions of success were fatal to the goals outlined. Although the technology employed represented a real strength of this model, as conventional armament, transportation, and communications are still relevant today, it was based in beliefs and did not consider a war of attrition like the one WWI turned out to be.

In the years that followed the war in Vietnam, the focus of the US military shifted from Southeast Asia to Europe. Then, the major concern and subject of discussion was how to deal with the threat coming from behind the Iron Curtain. The Army proposal, that the Air Force quickly embraced, came out under the name of AirLand Battle. This new concept revealed influences from the Blitzkrieg through the Arab-Israeli wars (Citino, 2004: 258). In face of the Soviet supremacy in military numbers across the European theatre, and acknowledging that an army cannot be strong everywhere, the former version of the US doctrinal Army Field Manual 100-5, *Operations*, prescribed a concept of active defense (*Ibid.*: 257). This meant that air and mechanized ground forces would have to stop the advance of the Warsaw Pact wherever it might occur, almost as firefighters who fight several igniting fires (*Ibid.*). This model of operational art, weakened by giving the enemy all the initiative, was a synonym for slow erosion and defeat in the outnumbered West forces, and therefore it needed revision. Under the same perspective, other criticisms of this model reported two opponent currents of thinking to stop the Soviet Army: while some favored maneuver, others preferred a war of attrition (*Ibid.*: 258). Another weak point of this model was that it relied in assumptions rather than in facts. In reality, it assumed that the Soviet Union would maintain unchanged its traditional plan, both in attacking with tanks as in keeping its military behavior intact (*Ibid.*: 260).

In light of these weaknesses, a change in FM 100-5 was more than welcome. The new AirLand concept “had four basic tenets: Initiative, Agility, Depth, and Synchronization” (*Ibid.*: 262). In this new model, lessons of past conflicts, especially involving German and Israeli forces, were poured and melted together with classics of military history and theory, like Clausewitz and Liddell Hart (*Ibid.*: 263).

AirLand Battle represented an “attempt to achieve a balance between the factors of maneuver and firepower” (Skinner, 2003: 9) and therefore looked as if it was tailored to extract the most effect from air power capabilities, although just in a supporting role.

\(^2\) The Prussian strategist Shlieffen draw a plan for a possible war, in which Germany could be forced to fight in two fronts, as a consequence of Franco-Russian agreements and treaties between 1891 and 1894. His plan, developed well before WWI, advocated for a fast defeat of the French in the west, and then, if necessary, a fast redeployment of forces to fight the Russians on the eastern front (Rothenberg, 1986: pp. 311-312).
Still, AirLand Battle clearly benefited from the offensive and the integration of air strikes with ground maneuver. This new approach, enhanced with modern armament like new tanks, and attack helicopters, seemed intended for success.

In this respect, new air strategists like USAF Col John Warden thought otherwise. He envisioned a victory in war through paralysis. Air power alone, by means of a series of parallel attacks at the strategic level, could render the enemy helpless (Warden, 2011: 71). Viewing the enemy as a system, it would be possible to attack and defeat him by attacking its Centers of Gravity (Creveld, 2010: 363). This approach to warfare depended greatly on technology, mainly precision munitions and stealth aircraft. Despite some criticism derived, from the obliteration of the role played by the other military services, this strategy proved repeatedly successful in the Gulf Wars and the Balkans, and even relaunched airpower to an era of glamour and renewed hopes of decisiveness.

An adverse effect of those achievements was this idea created in the aftermath of Desert Storm, that technology, namely air power, would always provide a quick and clean victory. It is undeniable that this model benefited from the principles of offensive and surprise to shock the enemy. Notwithstanding its enormous success, some say it was limited in scope. In those views, Warden’s ideas remained limited to conventional warfare and did not respond to other challenges posed by rough terrain, jungle, insurgency, and nuclear warfare.

This paper makes an analysis of some models of operational art, showing that their weaknesses are often related with false assumptions and poor employment of technology.

While Napoleon’s operational art possessed the strengths inherent to his understanding of the feasible strategy, based on the offensive and mass armies to engage the enemy in decisive battles, it also suffered from communication problems and from the inability to fight insurgencies. When others tried to follow his achievements, namely during the American Civil War, they failed to understand the differences in context: a civilian war instead of a nation against enemy state actors. To add, they underestimated the role of available technology which revealed weapons of increased lethality, and faster and more capable transportation.

The model of operational art that Mahan advocated had the strength of having a global reach, making possible to project power across the globe. It had nevertheless some weaknesses originated by the failure in acknowledging the existing technology and the different circumstance in which it was inspired: the former British Empire circumstances could hardly be applied to the American contemporary reality.

Although they acknowledged the role of technology, Shlieffen’s assumptions of fast army movements across Europe proved erroneous in face of what became a trench war, showing that plans for a war of attrition must be integrated into any campaign design.

Likewise, the AirLand Battle model combined technology with maneuver. However, this concept assumed a static and rigid enemy, rather than a flexible and adaptive opponent, and into some extent, by giving air power just the supporting role, it limited its effectiveness. Opposite to this model was the view of John Warden, who in turn advocated for air power decisiveness through strategic attacks on the enemy’s centers.
of gravity. This model of operational art relied largely on technology, but despite its huge success in Iraq and in the Balkans, lacked the global view of what the other military services could lend to a campaign overall outcome. An often mentioned limitation of Warden’s model - one that recent conflicts can erode - was that its domain was limited to conventional warfare.

This paper clearly shows that context, available technology, and reality, meaning precise intelligence, rather than assumptions, are some of the tenets that any model of operational art must take into account. Every time a strategist failed to acknowledge these principles, he was ignored, unable to materialize his ideas, or even worse, he was crushed on the battlefield.

References


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