Observations

War-Making and the Machines of War

Victor Davis Hanson

In recent years, the term "revolution in military affairs" (RMA) has come to be applied to the vast change that computerized intelligence and globalization have brought to the conduct of war. This catchy sobriquet, however, is only a new name for something very old. In fact, radical transformations in military practice have marked Western history at least since Sparta and Athens squared off in the Peloponnesian war in the 5th century B.C.E.

Such RMA's are also the focus of new books by two of our most accomplished commentators on military affairs: Frederick W. Kagan in *Finding the Target: The Transformation of American Military Policy** and Max Boot in *War Made New: Technology, Warfare, and the Course of History, 1500 to Today*.† Both of these scholars are wise enough not to be taken in by the notion that today's technological breakthroughs in satellite communications, computers, and miniaturization have altered the nature of war itself rather than merely the present face of battle, much less that they can by themselves win wars outright. Both also share a keen interest in the contemporary "war against terrorism," and in their articles (Kagan) and columns (Boot) have responded in similar ways to America's purportedly erratic progress in that war. Early and vocal supporters of the invasion of Iraq, each became harshly critical of our postwar efforts at counterinsurgency; each, furthermore, has at various times called for the resignation of Secretary of Defense Donald Rumsfeld. Such zeal is periodic in Boot's work, more overt and constant in Kagan's, but it informs their shared concern over a Pentagon leadership that has supposedly put too much reliance on high-tech weaponry and organizational principles borrowed from business and thereby contributed to the growing fragility of America's current position of military superiority.

Victor Davis Hanson *is a senior fellow at the Hoover Institution and the author most recently of* A War Like No Other: How the Athenians and Spartans Fought the Peloponnesian War *(Random House).*

Kagan's book, more contemporary in its frame of reference than Boot's, centers on three revolutions in the American military since the Vietnam war: the rise of the volunteer army with its high-tech equipment and weaponry, the appearance in the 1980's of precision-guided munitions, and the adoption of information technology. To Kagan's mind, these often welcome developments and their consequences in policy have gone hand in hand with a decidedly unwelcome failure of American military and strategic thinking.

No country, he writes, has a more diverse and effective arsenal than America's. At the same time, however, no nation is so bogged down fighting wars in a manner it would prefer not to. His bipartisan indictment fingers two primary culprits: Bill Clinton, who dismantled crucial elements of the cold-war military establishment, and George W. Bush, who, not understanding the larger political purposes of war, has lacked the necessary vision to reap the advantage of our vast conventional power.

Kagan is scornful of faddish concepts like "network-centric warfare" and of the idea that the American military needs to embrace the spirit and the tactics of successful Ameri-

* Encounter, 444 pp., $29.95.

† Gotham, 624 pp., $35.00.

can corporations—downsizing, seeking greater efficiencies through new technologies and on-demand supply trains, and overwhelming rivals with pyrotechnics. In his view, all such cookie-cutter notions miss the point of how best to defeat multifarious enemies. Old-fashioned armored divisions with tanks and massive artillery, with their expensive manpower costs, may not achieve as much bang for the buck, but they remain often better suited to war's proper aim: bringing about long-term political settlements favorable to the United States. "War is not just about killing people and blowing things up," he writes. "It is purposeful violence to achieve a political goal."

Afghanistan and Iraq are his object lessons. In both places, having put the military cart before the strategic horse, the U.S. easily toppled oppressive regimes only to find itself hard-pressed to replace them with something both lasting and better. To what advantage is all our high-tech weaponry, Kagan asks, if, after lightning-quick victories over the Taliban and Saddam Hussein, our soldiers are still, years later, falling prey to crude improvised explosive devices and primitive suicide bombers?

Kagan's advice is that the U.S. military undergo something of a *counter*revolution. We need, he insists, not more gadgets, but more human know-how. In practical terms, this means providing military officers with the resources and training—especially in cultural awareness and languages—that they need to serve as proconsuls in postwar landscapes. The victories of the future will be won and will endure, he argues, only when we have sufficient boots on the ground, filled by soldiers sophisticated in the ways of diverse enemies.

Max Boot's *War Made New* is a rather different creature, both in its temporal scope and in its methodology. A universal history of military transformation since 1500, it deals with four great upheavals: the gunpowder revolution that began in the late 16th century; the first industrial revolution in the late 19th century, which brought rapid communications, large-scale transportation, and the internal-combustion engine; the second and more radical industrial revolution in the early- and mid-20th century, which led to the mass production of sophisticated ships, planes, and tanks; and, finally, our own information revolution of satellites, computers, and instant wireless communications.

For each of his four eras, Boot provides graphic accounts of three representative battles and a chapter on "consequences." His section on the second industrial revolution, for instance, opens with the 1940 Nazi *blitzkrieg* in France before moving on to the Japanese attack at Pearl Harbor and then the firebombing of Tokyo in March 1945. Throughout, Boot provides a vivid and engaging mix of historical narrative and analysis, showing the bloody real-world results of abstract decision-making about the nature and degree of a country's military preparedness. His twelve case studies, stretching from the defeat of the Spanish Armada to the current situation in Iraq, point to a variety of disparate lessons but some themes that are surprisingly constant over time and space.

The most important of these is that sheer numbers do not always ensure victory. In the Sudan in 1898, Kitchener's redcoats defeated a Mahdi army that enjoyed as much as a three-to-one advantage in manpower over the English. As Boot argues, modern military success has depended less on bulk (or firepower) than on the broader capacities possessed by nations that are "intellectually curious and technologically innovative." The dynamism of imperial Britain gave Kitchener the expertise, organization, and capital to build a railroad across a bend in the Nile, thus enabling his expeditionary force to arrive near Khartoum intact, with plenty of artillery and machine guns and better supplied than its native adversaries. A similar intellectual dynamism, illustrated in another of Boot's accounts, enabled the innovative Japanese navy to achieve its astonishing victory over the Russian fleet in 1905 in the battle of Tsushima.

By the 20th century, modern-looking regimes, often statist like Japan, were ostensibly best positioned to harness the natural resources and industrial labor demanded by modern warfare. They also appeared most adept at raising the mass-conscript armies that would distinguish the two world wars to come. But, as Boot demonstrates, their seeming advantages proved transitory. In World War II, the American bomber plant at Willow Run, Michigan—a mammoth 3.5-million-square-foot structure that, by August 1944, was producing one B-24 every hour—ultimately counted much more heavily toward the outcome of the conflict than the innovation and craftsmanship that had given the Nazis V-2 missiles and a few hundred advanced ME-262 jet fighters. The initial battlefield successes of the Axis powers were made possible by surprise and a head start in rearming; but this was eventually reversed by the wartime defense bureaucracies of the Soviet Union, Britain, and the United States, all three of which, in their various ways, proved better at mastering the principles of interchangeable parts, the assembly line, and the fielding of millions of conscripts.

Concluding his survey with the present revolution in information systems, Boot sketches the ironies inherent in our own recent experience. Today's battlefield, in the Middle East as elsewhere, tends to favor decentralized and unconventional forces. In a globalized and interconnected world, terrorists underwritten by the petrodollars of despots can buy weaponry off the shelf and

have it Fed-Exed to Beirut or Damascus, giving them near-parity in this respect with Western militaries that, for a variety of practical and ethical reasons, appear restrained from bringing their full array of advantages to the conflict. For our part, as ever more American dollars have been invested in ever fewer high-end military "platforms"—that is, advanced computerized ships and planes—we have seen our attenuated forces in the field becoming increasingly vulnerable and risk-averse. Who would want to send even a single B-2 bomber over terrorist enclaves when a cheap shoulder-fired anti-aircraft missile might take out a half-billion-dollar investment?

Still, Boot warns against too single-minded a focus on asymmetrical warfare and its vulnerabilities. When it comes to blasting away at terrorists a few feet from American troops in the Hindu Kush, the cannons of an old A-10 Warthog will indeed do a better job than the new F-22 Raptor, which may be the most expensive and sophisticated jet in the world. But should the Chinese decide to storm Taiwan—hardly a fanciful possibility—it would be better to have that F-22 in the skies to ensure our strategic air superiority.

What this flexibility suggests is the need to avoid complacency—of any kind. In this fine book, Boot sees the 500-year history he reviews as a warning. The rise and fall of past militaries remind us that the United States is not foreordained to maintain its present edge. Therefore, we must recognize and replenish the font of our power by continuing to incorporate unconventional ideas and approaches into our military operations—remaining aware all the while that the category of the newly "unconventional" can still include some old-fashioned and allegedly outmoded ideas.

In the great debate over military transformation, we are fortunate to have clear-headed analysts like Kagan and Boot, who turn to history rather than technology to provide answers for the future. In fact, an even longer historical perspective than theirs can help put our present situation, including our mistakes, in a clarifying context, and perhaps help to ameliorate their own tendency (Kagan's significantly stronger than Boot's) toward pessimism.

As I mentioned at the outset, there have always been unexpected and abrupt changes in the way men fight—even in pre-industrial times. Military practice is most often turned upside down during wars of great savagery, in which states in breakneck fashion invest their human and material capital in trying to stave off annihilation. During most of the early 5th century B.C.E., the Hellenic city-states preferred to settle their border disputes by means of conventional collisions between phalanxes of hoplites (heavily armored and armed infantrymen). But during the almost three-decades-long cauldron of the Peloponnesian war (431-404), such traditional warfare fell by the way. Both conservative, landlocked Sparta and imperial, maritime Athens turned to other avenues and methods—triremes rowed by mercenary and slave oarsmen, innovative techniques in siegecraft, the use of light cavalry, even terrorism. These set off a cycle of challenge and response like nothing seen before in Greek history.

By the time of Athens's defeat in 404 B.C.E., this early RMA had changed Western warfare seemingly for good. Just as states could no longer envision armed conflict as a series of pitched battles among ranks of hoplites, so the old social classifications of the battlefield—with the wealthy on ponies, small property-owners in the phalanx, and the landless poor as skirmishers and rowers—no longer prescribed how and where men would fight. Moral philosophers and conservative generals decried these changes, complaining that the rabble, war machines, and money were now the decisive factors in war; but to no avail.

This seeming break with the past, however, was hardly the end of the matter. In ancient Greece exactly as today, sudden innovation did not completely overturn the old order, and those who believed otherwise would often come to regret it. Despite the obsolescence of hoplite phalanxes, the general idea of spearmen in close order—eventually modified to become mercenary soldiers with pikes—persisted for centuries after the Peloponnesian war. Generals from Epaminondas to Alexander the Great learned that phalanxes were still integral to armies—provided they were given ample support by siegecraft, artillery, and horsemen—and were especially useful for shattering enemy infantry and cavalry.

In much the same way, and despite the introduction of satellites, computers, and radically new metals and munitions, tanks not so different in appearance from those of the 1920's remain invaluable in modern warfare. They still fulfill the age-old need for a powerful mobile artillery providing protection for foot soldiers. Even horses have not been entirely displaced—as we saw in the famous photos of mounted Special Forces soldiers typing GPS coordinates into their laptops in the wilds of Afghanistan. It is instructive that today's sophisticated ceramic body armor makes modern soldiers look like nothing so much as medieval knights or indeed Greek hoplites, reminding us that the tension between offense and defense is eternal.

It is also the case that certain laws of war—the need for unity of command, for integrating tactics with strategy, for devising strategy with political objectives in mind—have been immune to technological revolution. Nor is this surprising: war remains an irreducibly human phenomenon, and human nature itself has not changed over the ages. Thus, although the 1991 Gulf war was a memorably high-tech conflict, and although American M-1 Abrams tanks almost always destroyed their

Iraqi counterparts in a first computer-guided shot, this by itself did not deliver lasting strategic advantage. The reason was that American planners were unsure of their ultimate goal: was it to defeat the Iraqi army in Kuwait while maintaining the sanctity of the wartime coalition, or to bring down the regime in Baghdad that was fielding that army?

Under this same heading comes the humbling and enduring reality highlighted by both Kagan and Boot: the transitory nature of military preeminence. By the end of the Peloponnesian war, Sparta had fashioned the best hoplite army in the world; yet in 371 B.C.E., the Thebans proved it tactically and strategically obsolete. Thirty years later, Philip of Macedon and his son Alexander showed that even the once-innovative Thebans were no match for pike-bearing, mercenary phalangites supported by heavy cavalry with sarissas. Resting on their laurels, today's victors like yesterday's often have to play catch-up when the shooting starts, and can stumble badly.

Finally, just about every technological transformation of consequence has taken place under Western auspices—if not Western in the strict geographical sense, then Western in the sense of a cultural landscape shaped by free thought and the chance for profit. Even non-Western innovations, like stirrups and gunpowder, have been quickly modified and improved by Western militaries. Jet fighters, GPS bombs, and laser-guided munitions are all products of Western expertise. Even the jihadists' most innovative and lethal weapons—improvised explosive devices and suicide belts—are cobbled together from Western-designed explosives and electronics.

But, as we have seen, this too is no cause for complacency. Precisely because such novel weaponry is a Western domain, there is always the danger that Westerners will underestimate the capacities of others. Crazy Horse at Little Big Horn, the Zulus at Isandlwana, Abu Musab al-Zarqawi in the Sunni Triangle—all have been able to import and use sophisticated weapons that they can neither make nor repair. The rocket-propelled grenades of al Qaeda may not be as fearsome as American anti-tank weapons, and may misfire or fail at much higher rates; nevertheless, they are good enough to permit illiterate teenagers to kill an American army officer with a quarter-million-dollar education from West Point, riding in a $100,000 Humvee.

Where does that leave us? With reason for caution and circumspection, but also with clear advantages that are sometimes scanted by analysts fixated on our errors and missteps. True, our enemies may be able to exploit some of our advances, but they will never match our intellectual dynamism. No society in the present age is so self-critical, so ready to embrace foreign ideas, or so transparent and merit-based as the United States.

Indeed, future historians may well attribute our recent successes—toppling the two worst regimes in the Middle East, presiding over the birth of consensual governments in their places, and losing fewer soldiers in the effort than during many individual campaigns of World War II or Korea—to an ever-innovative American military that learned quickly from mistakes of the kind described in *Finding the Target* and *War Made New*. The sometimes dour work of Frederick Kagan and Max Boot is itself emblematic of one of our society's greatest strengths: the capacity to adjust to changing events with the help of thinkers relying on a more deeply informed sense of historical reality than that conveyed in the panicked conclusions of the 24-hour news cycle.

But recognizing our shortcomings, and even our strengths, is not enough. Military revolutions are missed not only because of military sloth, delusional leadership, or a reactionary romance with the past, but because of a failure at the elite levels of society either to perceive real threats posed by real external enemies or to countenance the sacrifices necessary to meet those threats. Notable examples include ancient Athens and Rome, turn-of-the-20th-century Russia, and France in the 1930's. The principal challenge today is not only to hone our military in the face of constantly evolving challenges, but to convince an affluent, leisured, and often cynical American public that that we should even try to do so.