

French soldiers move from their trench to attack during the Battle of Verdun circa 1916 in France. (Photo courtesy of Wikimedia Commons)

On Attrition An Ontology for Warfare

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et's hit a reset, please. Attrition is perhaps one of the most misunderstood and abused ideas in contemporary military thinking. Policymakers, military practitioners, and theorists often use and abuse a slew of pejoratives to undercut attrition.¹ This phenomenon is a byproduct of 1980s and 1990s writing, which advocated nonattritionalist forms of warfare that appeared to be better aligned to advancing the U.S. Army's AirLand Battle doctrine, Marine Corps

Warfighting doctrine, and supporting the all-volunteer force. The writing and doctrine from this period influenced a generation of military practitioners who are today's senior military leaders and policymakers within the Department of Defense, the U.S. government, and many of the United States' political-military partners.² Many of the assertions made at the time were unscientific, ahistorical, and proffered to generate and maintain consensus for AirLand Battle, yet they continue to resonate deeply with the generation nurtured on those sentiments.

Authors such as William Lind assert that attrition is a form of warfare.³ According to Lind, attrition warfare uses firepower at the expense of movement to reduce an enemy combatant's numbers. Lind and his coterie of associates further suggest that other types of warfare use firepower and movement to create unexpected and dangerous situations for an adversary.⁴ Edward Luttwak takes an almost identical position, writing that "an attrition style of war" creates an embellished reliance on firepower at the cost of more movement-centric styles of war.⁵ In the often cited but flawed Race to the Swift: Thoughts on Twenty-First Century Warfare, Richard Simpkin places maneuver and attrition in a suspended position of contrast—casting each of theories as the opposite of the other and asserting that the former is far superior to the latter.⁶

The commenters of this period thus assert that a dichotomy exists: military forces either use destruction-centric or movement-centric approaches to warfare. Within this dichotomy, movement-centric approaches are high-minded and the zenith of military art, whereas destruction-centric approaches reflect a

military force's depravity of mind and practice in the military arts.⁷

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The problem with these assertions, however, is that the pragmatic coupling of movement and firepower applies to almost every conceivable type of warfare. This accounts for whether a force is firing to move or if they are moving to fire. One would be hard pressed to find a quality theorist or military (state or otherwise) that does not have the combination of movement, firepower, and surprise at the heart of their approaches to warfare.

Moreover, many of the antiattrition pejoratives are built on strawmen to advance false information about attrition. As a result, attrition serves as a strawman for policymakers, military practitioners, and theorists to advance self-interested bias and institutional narratives about both war and warfare. What's more, ad hominem is also used to undercut the authority of the individuals who advocate for the usefulness and necessity of destruction-based warfighting in armed conflict. Some of the antiattritionists' comments include referring to those who support destruction-oriented warfare as "attritionists" or even going so far to suggest these so-called attritionists "don't get it."⁸

Nevertheless, the other side of this discussion finds a handful of contemporary scholars, analysts, and practitioners doing yeoman's work to bridge the gap between the concept's true utility with the animosity and institutional recalcitrance with the concept. These individuals are seeking to reset the discussion and set the record straight on attrition while chipping away the calcified misinformation surrounding the concept. Jack Watling has correctly posited, "All warfare is attritional."9 Michael Kofman states that attrition, as a matter of historical record, is the common way in which wars are waged.¹⁰ In his seminal research project on success in war, The Allure of Battle: A History of How Wars are Won and Lost, historian Cathal Nolan writes that states are victorious in war as a result of long, bloody, attritional affairs.¹¹ Chris Tuck asserts that attrition can be (and is) purposeful because it creates situational and temporal windows of opportunity that pragmatic mobile forces can exploit.¹² Franz-Stefan Gady and Kofman write that attrition is a useful tool when the situation—that is, the disposition, resource availability, time available, among other variables—does not allow a military force to conduct flanking operations or mobile strikes toward an adversary's rear area.¹³ Moreover, Anthony King asserts that destruction-based warfare is all but essential in areas of restrictive terrain, to include urban operating environments.¹⁴ In addition, Mikael Weissman builds upon the ideas of King, correctly pointing out that urban areas continue to grow, and therefore, the potential for destruction-oriented fighting in urban areas will increase as we collectively move forward in time.¹⁵

This article examines five of the most prevalent elements of misinformation about attrition: attrition is a form of warfare, attrition is a correlation of forces and means (COFMs) battle, attrition is focused on a one-to-one exchange ratio between adversaries, attrition abuses one's own logistics, and attrition is a lesser form of warfare. In examining these misunderstandings about attrition, this article provides three major findings.

First, attrition is not a form of warfare but a characterization of conflict in which one or more adversaries make the pragmatic employment of destruction-based tactics and operations to create or take advantage of tactical and strategic opportunities on the battlefield. What's more, it is time to progress past the use of the word "attrition" and the use of the phrase "attrition warfare." In its place, the defense and security studies community would benefit from identifying exhaustion and force-oriented approaches to warfare as destruction-based approaches. To make this point, this article uses this phrase, "destruction-based approaches," as a substitute for attrition warfare. Further, it is important to remember that destruction-based warfare is not movement agnostic. Rather, destruction-based approaches are fundamentally grounded in the combination of movement to enable firepower.

Furthermore, one form of warfare does not carry an inherent advantage over another. Rather, forms of warfare organically evolve to the situational requirements. As a result, a form of warfare's value resides in its ability to best address the military situation at hand and to not adhere to a state military's preferred doctrine.

Moreover, the forms of warfare, as a rule, correspond to three factors. First, the forms of warfare reflect a state or nonstate actor's military goals. If the goal is removing a hostile force from the sovereign territory of another state—like we see with Russia's invasion of Ukraine—then destruction-based warfare is required to push the hostile army out of their neighbor's sovereign territory. On the other side of the coin, if a combatant's goal is a dash to take control of another combatant's capital, then a more movement-centric approach to warfare is required.

Second, the battlefield's situation influences the type of warfare a combatant might employ. A situation can be defined many ways, but in this case a situation includes the physical terrain in which the conflict is occurring, the location of all forces—regular and irregular—throughout the theater of war, the availability of time, and the military objective. A combatant's choice on how they want to fight withers away when weighed against the situation at hand. Thus, the situation has a deterministic effect on campaigns and operations, and subsequently, the tactics therein.

Third, the forms of warfare are reflective of a state's tools of war. A state military heavily invested in a reconnaissance-strike complex and mechanized forces will tend toward a firepower and destruction-based approach to warfighting more so than a state military that cannot support a robust strike and mechanized force. Likewise, nonstate actors tend to operate not so much on firepower and destruction but on movement and making the best use of position.

Defining Attrition

Trevor Dupuy provides one of the most useful and unbiased examinations of attrition. As a result of his discerning assessment, Dupuy's definition is used as the baseline for what is and is not attrition within this article.

Dupuy writes, "Attrition is a reduction in the number of personnel, weapons, and equipment in a military unit, organization, or force."¹⁶ Dupuy continues, defining attrition as "the difference between losses and returns to duty." Dupuy does not define attrition as a form of war, but rather, he defines attrition as a result of combat, and therefore as a characterization of warfare in which destruction is the currency and wars focused on exhausting an adversary by increasing the material costs of war beyond what the adversary can sustain.¹⁷ Further, he states that enemy action and accidents are the primary methods through which attrition materializes.

Building on Dupuy's analytical frame, more recent literature describes attrition as a state of being-or put another way, attrition is a characterization and not a form of warfare.¹⁸ The characterization of attrition can be applied situationally, or generally. For instance, an analyst can describe two tactical forces engaged in destruction-based fighting as a battle of attrition. This term can also apply if one side is using destruction-based methods against their adversary, but not putting their force in situations that allow for a comparable destruction-based approach from their opponent. Further, a combatant might use a destruction-based method combined with the pragmatic use of terrain, force disposition within the terrain, and timing to avoid having their own force attritted while inflicting high degrees of destruction on their adversary. This dynamic-the operational and tactical



Soviet troops on the Belorussian front take a short respite after fighting in Stalingrad during World War II. (Photo courtesy of RIA Novosti via Wikimedia Commons)

interplay between a force's location on the battlefield, firepower, and movement—is positional warfare.¹⁹

Nonetheless, Tuck notes that some situations require headlong fighting in which both adversarial forces have no recourse, nor method of escape from battering combat.²⁰ In these instances, in which both forces are engaged in methodical destruction-based warfighting like the international community witnessed in the latter phase of Operation Inherent Resolve's siege of Mosul, the watchful onlooker can classify this dynamic as a battle of attrition.²¹ When combined with the similar dynamic that occurred during the 2015–2016 battle of Ramadi, this campaign can be defined as a war of attrition.²²

In a conflict in which the entire theater is engulfed in destruction-based warfighting, the war itself can be defined as a war of attrition. Wars of attrition, as Nolan and other scholars remind us, are the womb in which military victory develops.

Examining Attrition's Detractions

The argument that attrition is not a form of warfare but rather a characterization of conflict threads throughout the five assertions:

- Attrition is a form of warfare.
- Attrition is a COFMs battle.
- Attrition is focused on a one-to-one exchange ratio between combatants.
- Attrition abuses one's own logistics.
- Attrition is a lesser form of warfare.

Assertion 1: Attrition is a form of warfare. Many individuals engaged in the defense-and-security studies space community imply that attrition is a form, or method, of warfare. This cannot be further from the truth. In a military thinking sense, a "form," "method," or "type" implies that the subject possesses a cohered body of knowledge and a set of operations and tactics. These ideas—the body of knowledge and operations and tactics—might be institutionally developed and maintained, or organically developed by a theorist working outside the confines of an institution. These ideas might be codified as strategy, concepts, or doctrine if maintained by an institution such as a Western military force. On the other hand, these ideas might be codified as theory if they are maintained by scholars, analysts, or theorists.

Nevertheless, an exhaustive examination of opensource Western military strategy, doctrine, and concepts fails to identify any coherent articulation of attrition warfare. That is, none of these institutions possess any semblance of a strategy of attrition, an attritional operating concept, nor a doctrinal framework for attrition warfare and its associated tactics. The U.S. Army's Field

Manual 3-0, *Operations*, and the British Army's *Land Operations* doctrine are instructive to this point. Field Manual 3-0 provides only one mention of attrition, and when it does, the purpose is, ironically enough, to assert that attrition is required to achieve victory in armed conflict.²³ The British Army's operations doctrine parallels the U.S. Army's absence of a cohered attrition warfare body of knowledge.²⁴

Frontal attacks are the closest thing one might find pertaining to attritional tactics in U.S. Army doctrine. Yet, it is important to take a frontal attack in context to the larger picture. Frontal attacks are often not the sole operation or tactic employed in a specific situation but are a component of a larger operation that seeks to enable, collapse, or destroy an adversary through the combination of firepower and movement. Combatants use frontal attacks to eliminate an adversary's ability to move and to hold them in place, making them prone to encirclement or destruction. Regrettably, Western military doctrine tends to describe frontal attacks as

"costly" but fails to elaborate on their usefulness in a wide view.

Given the absence in Western military doctrine, as well as defense and security studies or international relations scholarship regarding attrition warfare, one must surmise that the word attrition is describing an environment in which destruction is the currency of conflict and not a form, style, or type of warfare.

In other publications, scholars have provided an alternative framework for defining the mechanics of armed conflict.²⁵ In this framework for warfare (see figure 1), movement serves as the X axis and contact serves as the Y axis. Contact (i.e., direct engagement with an adversary) is rated from heavy to light. Movement (i.e., the ability to use movement more than firepower) is



A Ukrainian soldier in a trench 26 November 2022 at the Battle of Bakhmut. (Photo courtesy of the Ministry of Defense of Ukraine via Wikimedia Commons)

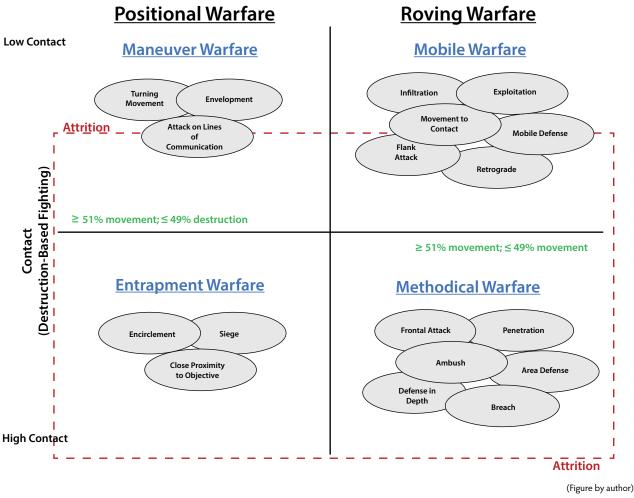


Figure 1. Framework for Warfare

also rated from heavy to light. The process of comparing movement and contact, from heavy to light along each of those variables, yields two primary forms of warfare positional and roving warfare. Two subordinate forms of warfare exist beneath positional and roving warfare. Attrition, for its part, is not a form of warfare. Rather, attrition is a descriptor—it's used to highlight armed conflicts, campaigns, battles, or engagements in which destruction-based warfighting is high and at least one side in the conflict is inflicting significant casualties on the other.

Further, a large amount of literature on the forms of warfare suggests that the goal of attrition warfare is to wear an opponent down and outlast them on the battlefield.²⁶ The problem here is that is a goal, not a method of warfare. Semantics aside, differentiation is important. The goal of outlasting an adversary while preserving one's own combat power is inherent to any actor operating in a competitive environment.²⁷

Accepting that attrition is an adjective and not a noun, and thus moving forward with a more detailed framework for warfare might well help kickstart the much-needed reset.

Assertion 2: Attrition is a COFMs battle. Dupuy finds that "there is no direct relationship between force ratios and attrition rates."²⁸ Dupuy states many factors influence attrition rates to include weather, physical terrain, a force's location, and relative combat effectiveness. Dupuy adds that the combination of variables, not one specific variable, influence attrition rates. He concludes that neither personnel strength nor force strength ratios impact attrition rates in a meaningful way. Based on Dupuy's analysis, it is safe to say that attrition is not a COFMs battle. Moreover, Wayne Hughes writes that destruction-oriented warfare is vital to suppressing a combatant, which in turn creates more situational opportunities for mobile exploitation.²⁹ That is, attrition creates many opportunities for deft military commanders to exploit.³⁰

Nonetheless, no compelling or empirical scholarship has emerged to refute Dupuy or Hughes's research. Further, Dupuy's use of attrition in relation to a rate implies its descriptive (i.e., adjectival) nature and not a form, method, or style (i.e., noun). Considering this article's first assertion in relation to Dupuy's proposition, it is safe to say that attrition is not a COFMs battle, but rather a descriptive term used to describe destruction-oriented warfare.

Assertion 3: Attrition is focused on a one-to-one exchange ratio between combatants. This assertion is incorrect on multiple grounds. First, if attrition is a characterization of conflict and not actually a method of warfighting, then this assertion's premise is null.

Second, the "one-for-one exchange ratio" assertion is a simplistic strawman used by attrition's detractors to obviate any discussion of the subject. Attempting to out-destroy an adversary does not also allow for a reciprocal amount of destruction to one's own forcesthese two things (i.e., out-destroying an opponent and allowing for one's own force to be destroyed) are not synonymous with one another, which is what the onefor-one exchange ratio explicitly asserts. The problem with this strawman is that it is illogical. To be sure, this pseudologic does not view each combatant as a self-interested, self-organizing combatant who attempts to learn from its environment and adjust its behavior in pursuit of survival and winning. A more appropriate logic—one that shows deference to the cognitive ability of all combatants to operate in self-interested waysasserts that an activity or action in war oriented against an adversary does not require having the same activity or action levied against oneself. For example, if combatant A destroys combatant B's field army, combatant A will do so insofar as doing so does not cause it to also destroy its own field army.

Nonetheless, to continue dissecting assertion 3, let's assume for a moment that attrition is a form of warfare. Let's assume two combatants, both of whom are industrialized states, are engaged in armed conflict. A degree of parity exists between both combatants; neither combatant A nor combatant B possess a significant advantage over the other in terms of the elements of national power or combat power. Both combatants operate on the logic of systems theory (i.e., their first goal is survival, and their second goal is victory), they are both rational actors (i.e., they each operate with their self-interest at the fore but will not sacrifice their survival for self-interest), and they both adhere to economic decision-making, which includes avoiding large-scale troop deployments and the wanton use of their forces. Viewed collectively, these ideas form the causal mechanism that dictates a military force's form of warfare (see figure 2).

Combatant B is combatant A's adjacent territorial neighbor. Combatant B has invaded combatant A's territory, and it is occupying one-sixth of combatant A's territory with a large joint force made primarily of a large land army. Diplomacy is at a dead end. Military options, at least for the time being, are combatant A's only recourse to its geopolitical problem.

Militarily, combatant A has a more open command system in which senior leadership empowers its junior leadership to make on-the-spot decisions. This ethos permeates throughout combatant A's military force. Combatant B, on the other hand, has a closed command system in which decision-making is hierarchical. As a result, combatant B operates a command system that is slower, less informed, and less responsive to a current tactical or operational situation than combatant A's.

Combatant A wants to use a destruction-based approach to fighting and defeating combatant B. Combatant A wants to fight this way because the existence of combatant B's military force is the object of combatant A's military strategy and the primary challenge that its policymakers must address. Thus, combatant A assumes that the physical destruction of combatant B's land force will trigger combatant B's policymakers to change their state's policy and end the conflict posthaste. Moreover, it is also wise to assume that combatant B will call for a negotiated end to the conflict at a point far removed from the outright destruction of their land army. Therefore, combatant A is correct to assume that a destruction-based approach is best for addressing combatant B.

Yet, combatant A's caveats—avoid large-scale troop deployments and the wanton loss of one's forces and equipment—means that they are not interested in using bad operations or poor tactics. Bad in this case means methods of warfare that increase their own casualties.

Systems Theorv

Rational Actor

Goal orientedSelf-interested

Economic Actor

- Resourceful
- Goal oriented

(Figure by author)

Figure 2. Causal Mechanisms for a Specific Form of Warfare

Combatant A's true military interest is in destroying as much of combatant B's military force as possible, in the shortest amount of time feasible, while protecting its own force and preventing its destruction.

As a result, combatant A's operations and tactics will be a blend of movement, striking (i.e., attacking), and protection that best delivers a destructive effect on combatant B while preserving its own force. Preserving one's own force is the important thing to remember here. Any rational and economically minded combatant will operate, to its best ability, in a self-preserving way, while striving to achieve its military objectives.

History does nonetheless provide a few instances in which a state's military was forced into situations in which it was in a relative reciprocal scenario with its adversary. World War II's eastern front, for instance, provides many examples in which exchange rates between the Soviet Union's armed forces and those of Nazi Germany were relatively equal.³¹ This was more the result of situational factors than preferential methods. Russia's activity during the battles of Mariupol and Bakhmut is instructive. In each battle, Russia attempted to offset the loss of its own state military forces by increasing its reliance on proxy forces. These proxies included the Donetsk People's Army, the Luhansk People's Army, and the Wagner Group.³²

Nevertheless, one would have to eliminate one or more of warfighting's causal mechanisms (figure 2) to assume that combatant A or B would willingly engage in combat that allowed for a onefor-one exchange rate. At the same time, one would have to assume that a combatant is irrational if it were to remove one or more of the elements of causality. Causality aside, it is dishonest to assume that a state military would intentionally operate in an irrational manner, and this is assertion 3's most egregious leap of logic. States and their militaries do not operate illogically. At least not intentionally.

Assertion 4: Attrition abuses one's own logistics. Building on the three previous assertions, it is easy to understand that most logistics concerns regarding

attrition are unwarranted and overinflated. The abuse of logistics argument only stands on merit if one assumes that the combatant using destruction-based warfare is an irrational actor. Yet, we have already established that states and their militaries operate rationally and economically, according to the determinism of systems theory. To squander one's personnel and equipment through haphazard military operations would be the acme of irrational action. To be sure, the combatant would have to have to set aside the prospect of long-term survival, both of the state and its military, to prioritize short-term winning. That is not likely to happen, and states will likely modify their behavior and objectives to achieve balance within their own balancing of systems theory, rationality, and economic thinking.

Assertion 5: Attrition is a lesser form of warfare. Many of the strawmen provided by the late 1970s-, 1980s-, and 1990s-era theorists continue to erode clear thinking about attrition. Writing in 1979, Edward Luttwak disparages attrition as a firepower-centric



A Russian tank burns in a field on 5 November 2023 near the town of Vuhledar in the Donetsk region of Ukraine. (Photo courtesy of the General Staff of the Armed Forces of Ukraine)

warfare that is out of step with the direction the United States and NATO should be headed.³³ Luttwak writes,

We all know what attrition is. It is war in the administrative manner, of Eisenhower rather than Patton, in which the important command decisions are in fact logistic decisions. The enemy is treated as a mere inventory of targets and warfare is a matter of mustering superior resources to destroy his forces by sheer firepower and weight of materiel.³⁴

Luttwak offers that more movement-oriented forms of warfare are better than firepower-based forms of warfare.³⁵ Luttwak provides this opinion without providing empirical evidence to support his argument. Further, he asserts that Western militaries would be best served using an alternative, movement-centric form of warfare rather than the laborious and synchronized attritional style.³⁶

In the mid-1980s, William Lind emerged on the scene as another attrition detractor. Lind decries attrition as a slow, ponderous approach to warfare that places synchronization, timing, and centralized command and control ahead of responsiveness and surprise.³⁷ Writing

in the early 1990s, John Antal states that armies that adopt an attritional style of warfighting emphasize firepower ahead of movement, and that by doing so, attrition-oriented armies are less capable of inflicting cognitive paralysis on an adversary and winning in a more cost-effective manner.³⁸ Lind, Antal, and Luttwak's theses, in addition to promoting institutional recalcitrance toward the concept's utility, remain today's static that interferes with a clear picture about destruction-oriented warfare.³⁹

Many of the points made by individuals such as Luttwak, Lind, and Antal do not stand up to analytical rigor. The empirical work of Hughes, for instance, finds that firepower and destruction are quintessential elements of battlefield victory.⁴⁰ Moreover, terrain, more so than anything, dictates the speed at which a combatant operates. Terrain further defines whether a military operation or tactical engagement is a headlong clash of forces, or if one combatant can flank the other combatant and reach the rear of their formation. Terrain, when combined with an adversary's actions, further complicates matters. An adversary in open terrain might contract into restrictive terrain, such as mountains, dense woods, and urban areas to offset the advantages of a mobile adversary who possesses fire and combat power overmatch.

A combatant's training proficiency is also another factor that determines the swiftness of a combatant's combat operations. To this point, it is also important to convey that combat losses over time change an army. Kofman notes that as a conflict elongates over time, the original, highly trained army of regulars tends to be replaced by hastily trained conscripts.⁴¹ As a result, the combatants both become less adept at synchronized combined arms warfare, and thus, sequential combined arms warfare overtakes the former. It is therefore disingenuous to assert that attrition is a lesser form of warfare. Instead, destruction-oriented warfare often results from necessity.

Further, unless a combatant is fighting a purely defensive war, all combatants are interested in applying the combination of movement and firepower and in generating surprise in an adversary in order to make the most of a tactical engagement or military operation. Even in a defensive war, tactical elements therein are interested in mobility behind their lines so that they can reinforce and conduct other support at various points in their respective lines. As a result, it is disingenuous to suggest that attrition is not an important feature of warfare.

What's more, strategist Alexander Svechin offers that destruction-oriented approaches to warfare are the next logical option when a war cannot be won in a single, decisive strike or battle of annihilation.⁴² Svechin writes that destruction-oriented approaches are directed toward obtaining and maintaining material superiority, while depriving a hostile combatant of the means that they need for continued resistance.⁴³

Since history demonstrates that most wars are not won in a singular, decisive strike, it makes sense for destruction-oriented operations to take center stage in armed conflict.⁴⁴ Thus, attrition, although not actually a form of warfare, is not a lesser form of warfighting. Those who make this suggestion are selectively ignoring the impact that deterministic elements such as terrain, time, an adversary's action, and training have on combat.

Conclusion

Attrition is a characterization of conflict; it is an adjective used to provide meaning to engagements, battles, campaigns, operations, and wars in which destruction is high. Moreover, attrition lacks a coherent body of knowledge and an accepted set of practical applications that would allow it to be considered a form of warfare. Therefore, it is prudent to accept that attrition warfare is not actually a typology. Rather, it is a misnomer that needs rectifying. Replacing attrition in all cases in which the defense and security studies community, as well as military practitioners, are not outlining an activity's character is paramount. The term destruction-oriented warfare is an appropriate replacement for attrition's use regarding a form of warfare.

Further, Western militaries must graduate beyond fanciful and idealist thinking about armed conflict. The destruction of hostile armies is how a military creates the situation required for their policymakers to pursue strategic victory. In some instances, however, that is not the case. The threat of or the bludgeoning push toward the destruction of a hostile army generates the signal for hostile policymakers to negotiate an end to armed conflict.

Lastly, if the United States remains an economic and military superpower, then it can (and should) operate with a destruction-oriented approach to warfare. When looking for strategic advantage, the United States' economic and industrial asymmetry with nearly the rest of the world is one of its most salient and powerful advantages. It would be foolish to not make the most of that advantage. The U.S. military and its Western partners can fight and win large-scale industrial wars in which destruction-oriented combat is the central component. The destruction of armies or the push toward destroying armies is the most effective and historically supportable way in which to drive policymakers to the negotiation table.

Notes

1. Josh Luckenbaugh, "AUSA News: Army Transforming—Not Just Modernizing—for Future Battlefield," *National Defense Magazine* (website), 9 October 2023, <u>https://www.</u> nationaldefensemagazine.org/articles/2023/10/9/army-transforming-not-just-modernizing-for-future-battlefield; William Lind, The New Maneuver Warfare Handbook (n.p.: Special Tactics, 2023), 64. 2. David E. Johnson, "Shared Problems: The Lessons of AirLand Battle and the 31 Initiatives for Multidomain Battle" (Santa Monica, CA: RAND, April 2018), <u>https://www.rand.org/content/dam/rand/</u> pubs/perspectives/PE300/PE301/RAND_PE301.pdf.

3. William Lind, *Maneuver Warfare Handbook* (London: Routledge, 1985), 4.

4. Richard Hook, ed., *Maneuver Warfare: An Anthology* (Novato, CA: Presidio Press, 1993), 4–74.

5. Edward Luttwak, "The Operational Level of War," *International Security* 5, no. 3 (1980): 63, <u>https://doi.org/10.2307/2538420</u>.

6. Richard Simpkin, Race to the Swift: Thoughts on Twenty-First Century Warfare (London: Brassey's, 1985), 22–23.

7. Luttwak, "The Operational Level of War," 63-64.

8. Paul Barnes, "Maneuver Warfare: Reports of My Death Have Been Greatly Exaggerated," Modern War Institute, 9 March 2021, <u>https://mwi.westpoint.edu/maneuver-warfare-reports-of-my-death-have-been-greatly-exaggerated/;</u> Cole Petersen, "Clearing the Air—Taking Maneuver and Attrition Out of Strategy," *Military Strategy Magazine* 2, no. 3 (2012): 15–19, <u>https://www.militarystrategymagazine.com/article/</u> clearing-the-air-taking-manoeuvre-and-attrition-out-of-strategy/.

9. Jack Watling, "The Future of Warfare and the Russian Military," 18 April 2024, in *Revolution in Military Affairs*, podcast, <u>https://shows.acast.com/revolution-in-military-affairs/episodes/</u> jack-watling-on-the-future-of-warfare-and-the-russian-milita.

10. Michael Kofman, "A Bad Romance: US Operational Concepts Need to Ditch Their Love Affair with Cognitive Paralysis and Make Peace with Attrition," Modern War Institute, 31 March 2023, <u>https:// mwi.westpoint.edu/a-bad-romance-us-operational-concepts-needto-ditch-their-love-affair-with-cognitive-paralysis-and-make-peacewith-attrition/.</u>

11. Cathal Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost* (New York: Oxford University Press, 2017), 577.

12. Christopher Tuck, *Understanding Land Warfare* (London: Routledge, 2022), 99–100.

13. Franz-Stefan Gady and Michael Kofman, "Ukraine's Strategy of Attrition," *Survival* 65, no. 2 (2023): 7, <u>https://doi.org/10.1080/003</u> 96338.2023.2193092.

14. Anthony King, "Urban Insurgency in the Twenty-First Century: Smaller Militaries and Increased Conflict in Cities," *International Affairs* 98, no. 2 (2022): 621–26, <u>https://doi.org/10.1093/ia/iiac007</u>.

15. Mikael Weissmann, "Urban Warfare: Challenges of Military Operations on Tomorrow's Battlefield," in *Advanced Land Warfare: Tactics and Operations*, ed. Mikael Weissman and Niklas Nilsson (Oxford: Oxford University Press, 2023), 148–51.

16. Trevor Dupuy, Attrition: Forecasting Battle Casualties and Equipment Losses in Modern War (Falls Church, VA: Hero Books, 1990), 2–3.

17. lbid.

18. Amos Fox, "Move, Strike, Protect: An Alternative to the Primacy of Decisiveness and the Offense or Defense Dichotomy in Military Thinking," Land Power Essay 23-4 (Arlington, VA: Association of the United States Army, June 2023), <u>https://www.ausa.org/ publications/move-strike-protect-alternative-primacy-decisiveness-and-offense-or-defense-dichotomy.</u>

19. Sidharth Kaushal, "Positional Warfare: A Paradigm for Understanding Twenty-First-Century Conflict," *RUSI Journal* 163, no. 2 (2018): 34–35, <u>https://doi.org/10.1080/03071847.2018.1470395</u>. 20. Tuck, Understanding Land Warfare, 99-100.

21. Amos Fox, *The Mosul Study Group and the Lessons of the Battle of Mosul*, Land Warfare Paper 130 (Arlington, VA: Association of the United States Army, February 2020), 4–5, <u>https://www.ausa.org/publications/mosul-study-group-and-lessons-battle-mosul</u>.

22. Eric Robinson et al., When the Islamic State Comes to Town: The Economic Impact of Islamic State Governance in Iraq and Syria (Santa Monica, CA: RAND Corporation, 2017), 129–40, <u>https://</u> www.rand.org/pubs/research_reports/RR1970.html.

23. Field Manual 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office, 2022), 1-3.

24. Army Doctrine Publication AC 71940, *Land Operations* (Warminster, UK: Land Warfare Development Centre, March 2017 [obsolete]), 4-7, <u>https://www.gov.uk/government/publications/</u> <u>army-doctrine-publication-operations</u>.

25. Fox, "Move, Strike, Protect," 7-8.

26. Julian Lider, "The Correlation of World Forces: The Soviet Concept," *Journal of Peace Research* 17, no. 2 (1980): 151–71, https://doi.org/10.1177/002234338001700205.

27. Donella Meadows, *Thinking in Systems: A Primer* (White River Junction, VT: Chelsea Green Publishing, 2008), 16.

28. Dupuy, Attrition, 98.

29. Wayne Hughes, "Two Effects of Firepower: Attrition and Suppression," *Military Operations Research* 1, no. 3 (1995): 30, https://core.ac.uk/reader/36730841.

30. Ibid.

31. David Glantz and Jonathan House, *When Titans Clashed: How the Red Army Stopped Hitler* (Lawrence: University Press of Kansas, 2015), 179–95; Robert Citino, *The Death of the Wehrmacht: The German Campaigns of 1942* (Lawrence: University Press of Kansas, 2007), 96–97.

32. Leonie Chao-Fong, "Russia-Ukraine War: Russia Accused of Demolishing Mariupol Theater 'to Hide War Crimes'—as It Happened," *The Guardian* (website), 23 December 2022, <u>https://www. theguardian.com/world/live/2022/dec/23/russia-ukraine-war-livenorth-korea-denies-supplying-russias-wagner-group-with-weaponsair-raid-sirens-sound-in-mykolaiv.</u>

33. Edward Luttwak, "The American Style of Warfare and the Military Balance," *Survival* 21, no. 2 (1979): 57, <u>https://doi.org/10.1080/00396337908441800</u>.

34. lbid.

35. Ibid.

36. lbid., 59.

37. William Lind, "The Theory and Practice of Maneuver Warfare," in *Maneuver Warfare: An Anthology*, ed. Richard Hooker (Novato, CA: Presidio Press, 1993), 3–6.

38. John Antal, "Thoughts About Maneuver Warfare," in Hooker, *Maneuver Warfare*, 67–72.

39. Luckenbaugh, "AUSA News: Army Transitioning."

40. Hughes, "Two Effects of Firepower," 29–30.

41. Michael Kofman, "Firepower Truly Matters," 3 December 2023, in *Revolution in Military Affairs*, podcast, <u>https://shows.acast.com/650105b75a8d440011ecd53c/episodes/firepower-truly-matters</u>.

42. Alexsander Svechin, *Strategy* (Minneapolis: East View Information Services, 1992), 245.

43. lbid., 246.

44. Nolan, The Allure of Battle, 577.