

The New Makers of Modern Strategy: From the Ancient World to the Digital Age

Edited by Hal Brands. Princeton University Press, 2023, 1,158 pp.

The New Makers of Modern Strategy is the latest update to the classic compendium first edited by Edward Mead Earle in 1942 and last updated in 1986 by Peter Paret. Unlike Earle or Paret, who were historians, the editor of this most recent volume, Hal Brands, is a political scientist. Brands is the Henry A. Kissinger distinguished professor of global affairs at the Johns Hopkins University School of Advanced International Studies and a resident scholar at the American Enterprise Institute. The latest version of this anthology consists of 45 essays from a veritable *Who's Who* in contemporary strategic studies, with two contributors—Williamson Murray and S. C. M. Paine—contributing two essays. Eight essays from the previous volume have received a fresh treatment in *The New Makers*.

The New Makers has twice as many contributions as the original *Makers of Modern Strategy* and slightly more than one and a half as many as the Paret edition.¹ This reflects an attempt to cast a wider net than its predecessors in terms of both the periods and material covered, such as the inclusion of new domains and a shift from the bipolarity of the Cold War to a multipolar world. In this, it achieves mixed results. Despite its subtitle, the ancient world is an afterthought. Only two entries cover strategy in the period prior to Machiavelli—the earliest strategist discussed in the prior editions—in contrast to four that touch on the First World War.

The book does a better job when expanding the range of the *Makers* series. It does this through the inclusion of essays on strategy in non-Western contexts and on the economic aspects of strategy. Among the first, Paine's and Elizabeth Economy's essays are especially noteworthy, and serve as valuable introductions to Chinese thinkers such as Sun Yat-Sen, whom Western strategists would be well advised to become familiar with. The contributions by James Lacey and by Eric Helleiner and Jonathan Kirshner on the relationship between economics and strategy are some of the best contributions to the volume.

Yet Brands' attempt to broaden the *Makers* perspective is not always successful. Kori Schank's essay on "Strategic Excellence: Tecumseh and the Shawnee Confederacy" and Priya Satia's "Strategies of Anti-Imperial Resistance" are among the weakest contributions to this volume. Both pieces could have been sacrificed in favor of addressing some of the omissions in the earlier editions and in this specific volume. Carter Malkasian's essay "Strategies of Counterinsurgency and Counter-Terrorism after 9/11" is one of several contributions that are of uneven quality. The portion on counterterrorism is valuable and highlights how domestic politics and fiscal realities impact strategy, key factors that are often overlooked by military leaders. Yet the section on counterinsurgency borders on hagiography and would have been better served by a more skeptical voice like

1. Edward Meade Earle, ed., *Makers of Modern Strategy: Military Thought from Machiavelli to Hitler* (Princeton: Princeton University Press, 1943); and Peter Paret, ed., *The Makers of Modern Strategy from Machiavelli to the Nuclear Age* (Princeton: Princeton University Press, 1986).

that provided by Gian Gentile.² Overall, the uneven nature of the essays in this collection leaves one with the feeling that a third of them could have been omitted entirely.

Despite the greatly expanded nature of *The New Makers*, once again there is no essay on Julian Corbett. Airpower theorist John Warden and the ever controversial but often-cited John Boyd are both deserving of coverage but also go unmentioned. As in the previous edition, geopolitics is overlooked. An essay on Halford J. Mackinder and Nicholas J. Spykman would have been valuable and would have served to complement Derwent Whittlesey's on Karl Haushofer in the original edition. Despite the ubiquity with which terms like hybrid, gray zone, and irregular warfare are thrown around, the debate about their usefulness as intellectual constructs is far from settled, and an essay by Donald Stoker on the topic would have been a welcome addition.

The inclusion of new domains is discussed in Joshua Rovner's "Strategy and Grand Strategy in New Domains" and is one of the more useful essays in the volume. He reminds us that there is no magic technological solution that leads to cheap victory. By successfully tying the new domains of cyberspace and space to the past, Rovner illustrates how logistical, organizational, and fiscal realities will define the realm of the possible. Ultimately, strategic success requires integrating capabilities from both new and existing domains. One can see a future edition of *Makers* including a more expansive examination of strategy as it relates to space and cyberspace.

Lawrence Freedman's opening essay on the idea of strategy is, like all his work, insightful. Yet it is essentially a reworking of two pieces that were previously published in the *Texas National Security Review*.³ In addition to those contributions already singled out for praise, among the most valuable essays in the book are Walter Russell Mead's on the strategic legacy of ancient Greece and Rome, Michael Leggiere's on "Napoleon and the Strategy of the Single Point," and Iskander Rehman's discussion of French strategy in the seventeenth century.

Hew Strachan's treatment of Carl von Clausewitz is an example of how fresh insights can be found in oft-studied material. At the same time, Dimitry Adamsky's discussion of the revolution in military affairs and Thomas Rid's examination of the intelligence revolution are thoughtful pieces that bring the *Makers* series into recent history. The volume concludes with an excellent essay by John Lewis Gaddis that neatly summarizes and ties together the work by the preceding authors.

The New Makers embraces a broader conception of strategy than the 1986 version, which was firmly focused on war. This reflects not so much an evolution of the term strategy but a return to its use in the original Earle edition. Yet, in doing so it unwittingly raises questions of who makes strategy and at what level it is made. Because of the nature of the volume—a collection of essays that examine practically the entire span of

2. See, for example, Gian Gentile, *Wrong Turn: America's Deadly Embrace of Counterinsurgency* (New York: New Press, 2013).

3. See Lawrence Freedman, "The Meaning of Strategy, Part I: The Origin Story," *Texas National Security Review* 1, no. 1 (December 2017); and Freedman, "The Meaning of Strategy, Part II: The Objectives," *Texas National Security Review* 1, no. 2 (2018).

recorded history across the globe—this book is ill-suited to answer this question or to untangle the nuances between policy, grand strategy, and strategy.

Despite this, *The New Makers of Modern Strategy* is essential reading for courses on strategy. It does not replace the previous two volumes but serves as a useful addition and update by expanding the historical periods, topics, and cultural backgrounds addressed in the *Makers* series. The uneven nature of this work, however, means that it is best dipped into selectively.

Lieutenant Colonel Wilson C. Blythe Jr., USA, PhD

Fight for the Final Frontier: Irregular Warfare in Space

John J. Klein. Naval Institute Press, 2023, 264 pp.

Fight for the Final Frontier plots irregular warfare strategic theories from traditional warfighting domains to space, arguing that established military strategic thought on limited warfare is valid in this newly recognized domain. John Klein, a retired US Navy commander with 22 years of service as a naval flight officer, has written extensively on space strategy and deterrence and is currently an adjunct professor at George Washington University's Space Policy Institute and Georgetown University's Strategic Studies Program. A clearly established academic in the field, Klein builds on his previous work on space strategy to demonstrate how irregular strategies might influence the execution of space warfare by the United States, its Allies, and its partners. The book considers a range of strategic theories applied to historical vignettes, and while not exclusively devoted to lessons from the maritime domain, it does follow the general trend of military space literature by focusing on maritime synergies.

Klein corrals a variety of strategic concepts across eight chapters. Throughout, the key tenets of multidomain strategic theory commonality, opportunity presented by asymmetric tactics, primacy of technology, and inevitability of third parties in play shine through as consistent themes. He first introduces irregular warfare itself, comparing it with limited war, hybrid war, gray-zone conflict, gunboat diplomacy, and other similar, perhaps popularized terms that fulfill his fundamental criteria for *irregular*. For Klein, irregular warfare amounts to any multidomain strategy that does not involve conventional warfare, where the end result is won by more than military force alone. This point is important and one of a few golden threads through the work; the lessons from recent history regarding counterinsurgency, maintaining political will, guerrilla wars, and great power competition all apply in irregular warfare and in the space domain. It is in these early chapters that Klein's key argument that "space is not special" starts to become clear. Although space is not a new domain, theory can be applied to it as well as any other domain. This makes the work accessible to students of military strategy who find themselves attempting to navigate the application of operational art to the space domain.

Klein makes the assertion that a state's space strategy will probably align with its other multidomain strategies, which are fed by the state's politics and culture. Actions in space are unlikely to be strategically decisive on their own, but their impact may have

strategic consequences. This is one area where Klein is able to describe the application of indirect warfare theory to the space domain, and he does so convincingly. Irregular warfare in space lends itself to cumulative strategies of small, non-decisive action, which prevents an overall victory. This highlights the asymmetric opportunity of a small space force and also the intractable nature and impact of time on irregular strategy, both of which are compounded in space domain conflict.

Chapter 3, arguably one of two key sections for space operations practitioners, discusses small space wars and the operational art of conducting irregular space warfare. Klein asserts that command of space—analagous to both command of the sea and control of the air—cannot be absolute but will be bounded temporally and spatially as well as often disputed. Key terrain across space, link, and ground segments are discussed. Klein also takes the opportunity to reintroduce celestial lines of communication—“those lines of communication in, through, and from space associated with trade, materiel, supplies, personnel, spacecraft, electromagnetic transmissions, and some military effects”—from his earlier work as a way to describe key terrain in space to be contested.¹ It is a fair argument that certain frequencies for communication or certain orbital regimes or planes are more valuable than others and that they will be contested. Klein discusses space control in terms of general versus local and persistent versus temporary—a valuable discussion, but one that left me wishing for a quadrant matrix as an accompanying figure to illustrate a space vignette fully.

In chapter 4, Klein also delineates how limited warfare or assertive activity short of conflict can still present challenges to space actors. Analogies with gunboat diplomacy are again well made and should give strategists thought when considering how to either assure access to space or coerce an outcome. A key argument introduced here and continued later is how space domain awareness—and its attribution of space action—is needed to reduce the gray zone that adversaries operate within during limited war. This argument offers one of the book’s more immediately and practically applicable ideas, reinforced in chapter 8 with Klein’s framework that recognizes space attribution as a process; however, it deserves even further exploration than this book provides.

Chapters 5 and 6 introduce lawfare—“the intentional distortion and misuse of legal regimes for competitive advantage”—and commercial risks and opportunities (91). Klein demonstrates how adversaries already have lawfare within their arsenal and how it is likely to also be employed in space. Borrowing from naval irregular warfare, he discusses space privateering and piracy, where the probability of the former—the pillaging and taking of “prizes” such as space capabilities or services with the authority of the government or other licensor—is well argued. Yet, the possibility of space pirates—who act outside of the law—seizing such prizes is perhaps a step too far outside the cone of plausibility. Setting the conditions for lawfare to be employed, he argues that commercial actors in space will drive the maturity of the space domain more than government actors. It is therefore incumbent on states to integrate key commercial elements into a hybrid space architecture, both to establish norms

1. John J. Klein, *Space Warfare: Strategy, Principles and Policy* (Abingdon, UK: Routledge, 2006), 51.

for space behavior in order to defend against lawfare and to exploit the opportunities and redundancies found within dual-use capability.

This latter opportunity from the commercial sector is further discussed in the context of space technologies in chapter 7. Klein offers that technology can provide deterrence by denial; any definitive action against a capability in space that can be mitigated through a hybrid redundancy potentially reduces the chance of the action at all, protecting sovereign capability. Klein then contends that, largely owing to the technologically driven context of space operations, the domain is inherently both offensive and predictable. A valid example is seen in the ways costs of launch forces prioritize ensuring payload capability over including defensive suites, while technology makes obfuscation difficult.

The book's second key element for the practitioner is the proffered 10 counterstrategies for irregular warfare in space. Here, Klein argues for education in irregular space warfare and then the criticality of maintaining political support and patience when in a prolonged, irregular conflict. He restates the importance of attribution through his space attribution framework, which creates a triad between space domain awareness, intelligence, and commercial elements. He argues the case for defensive measures and resilience in space and notes the need for a nonmilitary solution to irregular warfare, stating the importance of dispersal and concentration—that is, maneuverability—before work with commercial partners and allies. Klein's final point is to tie off a key thread that runs throughout his work: space is not special. There is no all-encompassing answer or rules to space strategy; there are just strategic guidelines for current strategists to contend with and apply.

Klein has made convincing arguments throughout. In what is a nascent but growing pool of academic literature, *Fight for the Final Frontier* is accessible to current military strategists and will help place space warfare thinking in the minds of multidomain planners. Yet while some of Klein's key strategic theories are well illustrated at a level accessible to the generalist, one or two clear and realistic space vignettes with more depth would help seat the book's offerings in the generalist strategy student's mind and therefore neatly into multidomain strategic education. Overall, *Fight for the Final Frontier* presents a good thesis. It deserves a place as essential reading for any military member engaged in professional military education or indeed any staff charged with operations, strategy, or capability development.

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Warrior Diplomats: Civil Affairs Forces on the Front Lines

Edited by Arnel P. David, Sean Acosta, and Nicholas Krohley. Cambria Press, 2023, 280 pp.

As the Department of Defense shifts its focus toward strategic competition, its temptation to simply leverage technological overmatch is real. In *Warrior Diplomats*, Arnel David, Sean Acosta, and Nicholas Krohley offer an anthology of nine chapters regarding the value proposition of military civil affairs forces within this new environment and how, at scale, the activities of these specialized service members inform military com-

manders—particularly in the human domain—at a fraction of the cost of the forecasted hardware procured for the joint force.

Despite published Joint, Army, and Marine Corps doctrine, there currently exists no unified theory of civil-military operations, but instead an interdisciplinary—and messy—body of work from sociologists, historians, political scientists, and strategists. The editors and authors of *Warrior Diplomats*, however, are largely operators, seasoned and exposed to the value of civil reconnaissance. David is a colonel in the US Army, Acosta a senior noncommissioned officer, and Krohley a US government adviser, all of them holding experience operating within and publishing about the human domain. The authors of the chapters include civil affairs professionals from the active and reserve components, US Army, US Marine Corps, and British Army. Throughout the book, the authors challenge their field to know their worth and do better.

The term *warrior diplomat* used throughout the book stems from the civil affairs tradition of many of the authors and speaks to the military's role in engaging and influencing people as well as battlefields. The warrior, exposed to contested terrain, must take acceptable risk in pursuit of operational outcomes, while the diplomat must act prudently and discreetly with foreign counterparts. The Joint force is asked to appreciate the nuance of geopolitics for the coming struggles, but it is important to remember that all politics—even geopolitics—is local. To that end, warrior diplomats, through civil reconnaissance, provide the commander a more granular understanding of the human networks and communities which the United States seeks to influence.

Over nine chapters, the authors lament the ad hoc structures built over the previous decades to address commanders' demands in that moment but hold that the wrong lessons may be learned from strategic failures by focusing only on technology as the remedy. While the authors do not challenge the Joint force's need to adapt and modernize, they posit a critical weakness is the inability to understand ground truth in areas of geopolitical importance borne of a lack of investment engaging at lower levels. Further, the Joint force must address this vulnerability through systemic change.

In recent years, the services have been divested of many of their civil affairs forces. Whether this divestment is due to policymakers shifting the focus of resources toward technological change or to their fundamental misunderstanding of civil affairs' value proposition, the authors do not claim civil affairs is without room for improvement. Instead, the book begins by communicating the value of civil affairs forces using historical and recent examples then suggesting ways to optimize civil affairs and evolve beyond the current structure.

The book first offers a discussion of the strategic environment and the new great game, resulting from a world disaggregating beyond even the bipolarity of the Cold War. This disaggregation makes the application of standard geometric models of the international state of play difficult if not irrelevant, specifically because these models do not adequately account for localized details. This leads directly to a discussion of operating in the gray zone below the state of open conflict and the opportunities available to the state able to leverage information about the populations in question. In the gray zone, presence matters, relationships shift, and optimization is difficult.

Warrior diplomats play a role as persistent partners, mapping local networks and providing continuous feedback to operations.

The discussion of the human domain balances cognitive and emotional models with historical context and strategic documents. Through this chapter, the authors remind the reader that influence over the population, the often-disregarded point of Clausewitz's trinity, requires an appreciation of both how people think and feel. The described relationship of network science is similarly academic as it relates to the discipline of civil reconnaissance cultivated in civil affairs manuals. Expanding on these models, Acosta challenges readers to elevate their staff work by "cancelling the crosswalk" matrices (the example given is the PMESII/ASCOPE matrix—political, military, economic, social, information, and infrastructure domains interwoven with areas, structures, capabilities, organization, people, and events) that equate to checking boxes rather than engaging in deep, meaningful analysis of populations relevant to commanders' decisions.

The messiness of these theories, however, is made salient with a relevant case study from central Africa's Lake Chad Basin, wherein forces managed to integrate multilateral humanitarian assistance and counterterrorism operations. The simultaneity of these activities, given the nature of influencing populations in under-governed spaces, may seem as necessary as it is novel to the staffer negotiating military authorities with higher headquarters. The authors then illuminate opportunities to optimize and improve with chapters on integrating civil affairs forces across the US Army (active and reserve components, conventional and special operations forces), across the Joint force (US Army and US Marine Corps), and across US Allies and partners—specifically discussing civil-military cooperation in the NATO Alliance—to build a global civil-military network.

Warrior Diplomats: Civil Affairs Forces on the Front Lines is, then, not a collection of war stories but a compilation that presents another paradigm for strategic competition beyond and complementing technological overmatch through its discussion of the value proposition of civil affairs forces moving forward. It leverages relevant examples of civil affairs actions during Operation Enduring Freedom–Philippines and the operation of the Danab Brigade in Somalia, but these inform the theories presented. Given the lack of exposure to civil affairs experienced by so many in the Joint force—neither the Air Force nor the Navy have designated civil affairs forces—*Warrior Diplomats* provides insight beyond what the practitioner might glean by simply reading doctrine. Current civil affairs forces may parochially appreciate the book insofar as it validates any thoughts they may have around organization and optimization. Even so, the layperson likely benefits more so with a broadened understanding of the tools available to the Joint force as it navigates the changing strategic environment.

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Deter, Disrupt, or Deceive: Assessing Cyber Conflict as an Intelligence Contest

Edited by Robert Chesney and Max Smeets. Georgetown University Press, 2023, 301 pp.

There is an old parable about a group of blind men encountering an elephant for the first time. They try to determine what the animal is through touch but are each able to touch only part of the elephant—its trunk, its ear, and its side. From their limited perspective, they determine what they have encountered—one thinks the elephant is a snake, another a fan, and the third, a wall. This same theme applies to the analysis of cyber in *Deter, Disrupt, or Deceive*, edited by Robert Chesney and Max Smeets. In examining offensive cyber operations, each editor finds comparisons based on their own understanding and offers solutions. The articles are well-researched and documented but lack any broad connection to an overall cyber operations thesis.

The editors ask contributors to align cyber conflict as an intelligence contest—or “statecraft pursued through the means and methods traditionally associated with intelligence agencies”—before examining state and nonstate actor policies (5). Integrating all cyber conflict possibilities with such a narrow scope is a difficult task, even for someone like me, despite my career in intelligence. Still, the book provides interesting reading for anyone involved in cyber or intelligence operations.

In the first section, contributors analyze the theory and concept of intelligence contests and cyber operations. The underlying insight suggests that some cyber operations fit into this framework, but the perspective is focused on strategic contests, which support the ends of national policy, rather than intelligence missions, which are the means to achieve the ends. In the first chapter, Joshua Rovner outlines the book’s central thesis, which demonstrates the five elements of intelligence contests: collect more information than an adversary; exploit information for practical gain; undermine adversaries’ morale, institutions, and alliances; disable opponent intelligence capabilities; and pre-position collection assets for the future. Rovner’s analysis of historical precedents spanning England and Spain in the late 1500s to the Cold War yield additional thoughts referencing the difficulty in using intelligence gains and a demand for secrecy in intelligence. The various authors discuss how these elements apply, but like the blind men, they are limited in their perspective to provide broader insights by viewing cyber operations through the lens of an intelligence contest.

The first six articles build a United States cyber operations perspective using the published national cyber strategy. Michael Warner starts the arguments by stating intelligence functions as a secretive support activity rather than a cyber end. The articles then address challenges between US Code Title 10 detailing military operations guidelines, and Title 50, which addresses intelligence collection difficulties in conducting covert cyber operations; and the United States’ management of past cyberattacks.

Each article varies the approach slightly, but the common theme suggests cyber operations that focus on intelligence collection as operations are too difficult to manage and execute. The difference between intelligence collection and operations is that the former prepares for future conflict while the latter generates current or future effects. Cyber difficulties emerge as large operation secrecy, the technical scope needed to cre-

ate effects, and deterrence model vagueness. Overall, the first section is interesting, but it highlights the need to further examine challenges in the US cyber model.

The next section addresses cyber internationally through China, Russia, and the United Kingdom. A retired People's Liberation Army officer submits the Chinese perspective on cyber operations as the defense of China's ideology. The author, Lyu Jinghua, suggests China's cyber aims to grow the country without physically destroying adversary assets constitutes legitimate cyber usage. This varies greatly from the international stance that economic cyberattacks such as stealing corporate intellectual property are as harmful as physical attacks.

Valeriy Akimenko and Keir Giles' article on Russia's approach to cyber activity contends that its current cyber operations mindset is an extension of Russia's long-term information operations. The case of Vasili Mitrokhin, a KGB defector who provided the UK's intelligence agency MI6 with intelligence files that exposed Soviet agents, is referenced as demonstrating how Russia has always defended its ideology against Western influences by any means necessary. Russian operations based in the GRU, an intelligence directorate, and the FSB, a state security agency that emerged from the KGB, show the national emphasis on continuing information warfare approaches.

Moving from adversarial nations to the UK, the philosophy shifts to protection rather than exploitation. Unlike adversarial nations but similar to the United States, the UK publicly acknowledges its cyber efforts center on the Government Communications Headquarters (GCHQ) intelligence hub. The section shows how other nations link intelligence contests and operations without losing the capacity to generate cyber effects.

The book concludes with nonstate actors. Nonstate actors typically imply terrorist organizations, but in the book, it refers to contractual parties working for the government in an intelligence capacity and other parties operating within the cyber environment. These parties have emerged due to the US government's general lack of cyber expertise. One key example, referenced in Lyu Jinghua's article, was American cybersecurity firm Mandiant's government-funded Chinese research. This government funding led China to conclude the Mandiant report constituted an ideological attack even when presented as pure research. The article demonstrates how government-funded cyber actors and government cyber action gaps will become inseparable in managing accountability. Thus, any action a private actor takes may be attributable to the US government. These discussions carry over to other state actions, such as use of social media by the Internet Research Agency (IRA) in St. Petersburg, Russia, to influence the 2016 presidential elections. The remaining discussion then addresses when contracted intelligence assets become official government action and whether those lines can be drawn effectively.

One clear gap in the book's analysis was in its technical knowledge concerning current cyber operational capabilities. The comment appears multiple times that cyber is more appropriate for intelligence as technical access lacks connections to physical effects. The 2008 Turkish pipeline explosion, Stuxnet, and multiple Ukrainian power outages are the most common physical examples of cyber effects. The 2014 Target hack shows where an infiltration via network access given to a vendor in charge of a physical system—the refrigeration, air conditioning, and heating system—led to financial results. Growing trends

in smart houses, integrated grids, and Wi-Fi everywhere show where initial cyber effects could drive or support integrated actions. Those integrated actions currently match Russia's information warfare plans, whereas China remains focused on economic growth. Failing to address these points means authors may not have fully considered the operational effects possible through cyber.

Overall, *Deter, Disrupt, or Deceive* summarizes some old arguments in a new format, updates the packaging, and presents the same solutions. The various authors do not reach an agreement on whether cyber should be considered merely an intelligence resource or a strategic policy tool. Lacking a conclusion is emblematic of the cyber field as a whole: the areas reachable through cyber grow daily, and no one agrees on the perfect approach. The central thoughts examined were scaling operations, maintaining secrecy, analyzing other nation's strategies and civilianizing cyber functions. The answer likely lies somewhere in between; however, continuing to analyze the issue from only one perspective—identifying one part of the elephant, so to speak—will likely not move the debate forward. Still, I would recommend *Deter, Disrupt, or Deceive* to anyone who has been exclusively on either the intelligence or operations side of cyber for ideas in eventually bridging the gap with solid strategies supported by policy.

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Outsourcing National Defense: Why and How Contractors Are Providing Public Services

Thomas C. Bruneau. Lynne Rienner Publishers, 2023, 167 pp.

Thomas Bruneau's *Outsourcing National Defense* wants to set the record straight on DoD contracting. Bruneau, professor emeritus at the Naval Postgraduate School, oversaw contractors as chairman of its national security affairs department and director of its Center for Civil-Military Relations, eventually becoming a contractor himself. Early in the book he highlights that contracting makes up an enormous part of the DoD budget but is an understudied topic among scholars. Several studies dealing specifically with private military and security contractors exist, but such contractors are just one part of a multibillion-dollar industry. The book is therefore both an initial study of DoD contracting and a call for more academic scrutiny on the topic.

Bruneau modifies an existing civil-military relations framework to understand the degree to which the Defense Department successfully uses contracting to get results. The factors he examines include the coherence of the DoD's strategy overall, the level of education and training of those who award and monitor the contracts, the implementation of the contracts, the level of oversight by Congress, and the usefulness of the Federal Acquisition Regulation (FAR)—the set of regulations and authorities most often used for DoD contracting.

Bruneau broadly applies the framework to two security challenges—or what he calls “strategies”—that the United States has faced in the past 25 years: the Global War on Terror, specifically Iraq and Afghanistan, and great power competition with China. He argues that each demanded different requirements from contractors. While the war on terror drove demand for expeditionary contracting that supported the war effort

abroad, great power competition requires contractors to provide cutting-edge technology. As the timelines of these two strategies overlap, the large number of contracts involved are often not always clearly demarcated as falling under one or the other. Yet Bruneau makes a compelling enough case that these strategies should be treated separately in terms of contracting, and his analysis benefits from isolating two different lines of effort at least in theory, even if in practice such a distinction is less clear.

Bruneau reaches several broad conclusions in his book. The first is that a lack of overall strategy in the war on terror drove an increased dependence on contracting to support the military's operations abroad. Simultaneously, the Defense Department did not know how to use contractors in the most efficient way. For instance, the DoD staff in charge of monitoring contracts to combat waste, fraud, and abuse were often unable to travel to the area of operations to personally monitor the contracts' implementation for logistical and administrative reasons, including the overwhelming amount of paperwork involved along with the security risk. Consequently, as contracting abroad expanded, the Department was increasingly unable to oversee it efficiently. While the withdrawal from Afghanistan and reduced presence in Iraq lessened the number of contracts, the issue was never fully addressed. Bruneau cautions that another expeditionary conflict could easily replicate those dynamics of inefficiency.

Bruneau's other conclusions focus on defense contracting more broadly. He asserts that policymakers should develop strategies that include contracting since it makes up such a large part of the DoD budget and underpins military operations and the delivery of new technologies. For the latter case, he contends that FAR is not ideal for acquiring new technologies compared to another contracting framework, Other Transaction Authorities (OTA), due to the latter's flexibility. OTAs have delivered significant results for the Defense Department, such as helping develop the COVID-19 vaccine. Still, very few contracts use OTAs compared to the FAR, so there are lost opportunities for the Department to acquire new technologies and compete successfully in great power competition. How the Department of Defense treats the staff that manage contracts also matters.

Bruneau points out that the Department does not use OTAs as much as it should because the staff who award and oversee contracts are poorly compensated and have limited prospects for career advancement. The existing structure offers few rewards for eschewing the FAR in favor of OTAs and presents potential consequences for one's career if they take a risk by not using FAR and do not succeed. He therefore argues that DoD personnel need a more effective incentive structure to pursue contracts that deliver new and better technologies.

The necessity for strong oversight, especially by Congress, is a major theme in Bruneau's book. He argues that the Defense Department often struggles to change without external pressure. In the war on terror, the Department resisted congressional oversight over contracting, even as lawmakers documented waste and recommended meaningful improvements. The most significant improvements to contracting for both the Defense Department and the Intelligence Community (IC) came after intense congressional monitoring and recommendations.

Bruneau's arguments and policy recommendations are compelling, but he is often limited by his sources and his access to information. This is not the fault of the author: few academic sources deal with the topic of contracting, and information about contracting from the Defense Department and Intelligence Community are frequently classified on the government side and proprietary on the industry side. Objective reports from the government, including the Congressional Research Service and Government Accountability Office, are in short supply. Bruneau conducted interviews with government officials and contractors to help fill in the gaps, but because contracting is ultimately such a complex and occasionally opaque subject and available information limited, he must resort to roundabout methods to reach his conclusions. For instance, he indicates that many problems in contracting by the IC were addressed because of a lack of reports and scrutiny after 2014. Yet these shortcomings reflect more on the quality of information currently available to researchers than on that of Bruneau's analysis itself.

As *Outsourcing National Defense* offers one of the first academic studies to tackle a topic as broad and complex as DoD contracting, there is much to build on. For instance, discussions on OTAs, contracting in Afghanistan and Iraq, and congressional oversight of contracting could easily fill books in their own right. Contracting in Intelligence almost certainly deserves its own study, as Bruneau's main focus is the Department of Defense as a whole rather than the IC, which spans multiple parts of the government. Bruneau and subsequent scholars should also seek to develop frameworks of analysis that are suited to the peculiarities of contracting, as the adapted framework he uses here may not be suitable for future studies.

This book is recommended not only for practitioners and scholars working on most elements of US national security but also for those interested in contracting. Bruneau makes the point that contracting is so fundamental to how the Defense Department operates that a reasonable understanding of how it works is key to recognizing how the military approaches everything from counterterrorism abroad to technological advancement at home. Because the Department is especially reliant on contracting, scholars and policymakers focused on other parts of the US government or foreign governments may not find that all the conclusions apply to their context.

In all, *Outsourcing National Defense* is not without its shortcomings due to limited access to information, but it addresses an enormous gap in the scholarly understanding of US national defense and lays a foundation for future work on defense and intelligence contracting.

Marcel Plichta

Blown to Hell: America's Deadly Betrayal of the Marshall Islanders

Walter Pincus. Diversion Books, 2021, 416 pp.

Popular histories of American nuclear weapons testing commonly tend toward the Manichaeian, neatly dividing that period of Cold War history between perpetrators and victims. In *Blown to Hell: America's Deadly Betrayal of the Marshall Islanders*, Walter Pincus rejects such a simplistic narrative, instead weaving a more intricate tale of the

complex moral and technological decisions made by the United States during the early atomic age. The resulting work justifiably casts the people of the Marshall Islands, that small island nation in the Western Pacific, as victims of atmospheric nuclear weapons testing's literal and metaphorical fallout. Yet it simultaneously paints a very human picture of those who participated in nuclear weapons testing, from the scientists who underestimated the yields of prototype weapons, to the medical doctors who devoted their lives to the health of those affected.

Though not a credentialed historian, Pincus comes with his own pedigree, having been among *The Washington Post* staff who won the 2002 Pulitzer Prize for national reporting for its coverage of the war on terrorism.¹ Moreover, he has deep experience as a national security journalist, having reported for the *Post* from 1966 until 2015. Indeed, he traces his own interest in nuclear weapons testing's effects upon Pacific Islanders to his earliest days as a journalist, reinforced by a 1974 visit to the Marshall Islands. Pincus' professional background manifests itself somewhat jarringly in the more distinctive writing style of *Blown to Hell*'s later chapters, given their more contemporary focus; yet his grasp of the subject matter remains evident throughout the book.

Pincus divides *Blown to Hell* into two halves, each arranged chronologically. The first half, dubbed "The First Tests," traces American nuclear weapons testing from the Manhattan Project to Operation Castle in 1954. The second half, "Long-Term Problems," picks up in the immediate aftermath of the Castle Bravo shot—the March 1, 1954, test of a thermonuclear weapon at the Marshall Islands' Bikini Atoll, which to date remains the highest-yield nuclear weapons test in American history—and recounts the US government's decades-long inconsistent treatment of the Marshallese following the irradiation of their homeland.

Pincus' use of Castle Bravo as the book's narrative focal point is not without reason, given that test's very real consequences for the Marshall Islanders' health and ability to return to their homeland; yet it comes at the cost of eliding discussion of subsequent nuclear weapons tests in the Pacific. Indeed, Operations Redwing (1956) and Hardtack I (1958) pass entirely unmentioned, leaving the reader with the mistaken impression that testing at Enewetak and Bikini Atoll ended with Operation Castle, and forgoing the opportunity to more closely examine the process by which the US government weighed the Marshall Islanders' welfare against the competing demands of national security—itsself a major theme of the book.²

The greatest strength of *Blown to Hell* is its ability to put a human face on those involved in nuclear weapons testing. Despite his evident sympathy for the Marshallese whose home islands were irradiated to the point of being uninhabitable, Pincus amply demonstrates that the scientists, military personnel, and bureaucrats responsible for

1. "Staff of *The Washington Post*," Pulitzer Prizes (website), 2024, <https://www.pulitzer.org/>.

2. T. R. Fehner and F.G. Gosling, *Atmospheric Nuclear Weapons Testing, 1951–1963, Battlefield of the Cold War: The Nevada Test Site*, vol. 1 (Washington, DC: Department of Energy, September 2006), <https://www.osti.gov/>.

conducting atmospheric nuclear weapons tests in the Pacific between 1946 and 1962 were operating at the limits of contemporary scientific comprehension.

For example, much detail is given regarding pioneering efforts to decontaminate target vessels after the second “Baker” shot of Operation Crossroads—the pair of nuclear weapons tests which in 1946 first displaced the Marshall Islanders from their home at Bikini Atoll—bathed its target vessels in irradiated seawater. Similarly, Pincus raises the important point that in 1954, scientists expected that Castle Bravo’s yield would be six megatons, not the 15 that occurred, and that both the volume and the geographic dispersion of the resulting fallout were consequently far greater than their plans had accounted for. But in addition to the islanders themselves, the author displays evident sympathy for those Atomic Energy Commission scientists and medical professionals who, like Dr. Robert A. Conard, devoted their professional lives to the Marshall Islanders’ well-being notwithstanding their own government’s role in the conduct of such tests. *Blown to Hell* thus yields a complex and multifaceted picture of the interactions between the US government and the Marshallese during and after the era of weapons testing.

That said, a significant defect of *Blown to Hell* lies in the inconsistency of its sourcing and argumentation. Although Pincus draws upon a diverse body of evidence, this does not uniformly speak to the US government’s treatment of the Marshall Islanders. For example, fully 14 of the book’s 41 chapters concern Operation Crossroads. Yet most of the content of those chapters concerns Joint Task Force One’s planning and execution of the tests, with the Bikinians’ evacuation and subsequent repatriation receiving comparatively short shrift—likely the consequence of the author’s heavy reliance upon US government sources. Pincus likewise describes in engaging detail the task force’s pioneering decontamination of Operation Crossroads’ target vessels but does not examine how or whether the lessons learned from that effort might have informed projections on the probable effects of fallout upon the Marshall Islands during subsequent tests. The result is a narrative that is rich in incidental detail but one which neglects to answer the question as to how the US government failed to predict the long-term consequences of atmospheric nuclear testing.

The problem of argumentation repeats itself, in a different guise, in the second half of the book. Pincus is at his most engaging as a writer when describing the plight of the *Lucky Dragon #5*, the Japanese fishing vessel at the center of international controversy when in 1954 its crew was accidentally exposed to radioactive fallout from the Castle Bravo shot. The author relates a compelling narrative grounded in the historical record, juxtaposing the maximalist positions adopted by the Japanese and American governments against the well-meaning efforts of scientists and medical professionals to ascertain what had happened to the fishermen and how to assist them.

Yet the book notably fails to tie the *Lucky Dragon* incident into the overarching history of the Marshall Islanders’ treatment by the US government. For example, it misses the opportunity to examine why the Japanese case received so much more public and international attention than the plight of the Marshall Islanders, beyond the simple fact that the White House exercised greater control over the flow of information in the latter

case. A more comprehensive study of the Castle Bravo test's human toll might account for the political necessity of keeping Japan on-side during the Cold War, or consider whether implicit bias played a role in the disparate treatment accorded to the "modern" Japanese and "primitive" Marshall Islanders. *Blown to Hell*, however, merely tees up such questions for other writers to address more fully.

Pincus' book, though an uneven and incomplete account of American nuclear weapons testing and its consequences, remains an engaging and accessible work of popular history, which generally succeeds on its merits. It convincingly demonstrates the devastating legacy of such weapons testing upon the Marshall Islanders to a degree best suited for readers with an introductory understanding of this chapter of Cold War history. The book has the particular virtue of illustrating the diversity of the US government's responses to unforeseen problems surrounding nuclear fallout, juxtaposing those who sought to preserve secrecy at all costs against those who, like Conard, committed themselves to the task of improving the Marshall Islanders' lives. Most importantly, Pincus effectively demonstrates that for the Marshallese, this chapter of history remains open as they continue to experience the physical and emotional consequences of nuclear weapons testing.

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The Military Legacy of Alexander the Great: Lessons for the Information Age

Michael P. Ferguson and Ian Worthington. Routledge, 2024, 370 pp.

British Army Major General J. F. C. Fuller, a veteran of World War I and a profound contributor to the development of armored warfare, wrote extensively on military theory, history, and biography. In particular, Fuller found examples of ancient generalship pertinent to contemporary military affairs and wrote accounts of the lives of two famous ancient generals, Julius Caesar and Alexander the Great—works which demonstrate Fuller's acumen as both historian and military officer.¹

Ian Worthington, professor of ancient history at Macquarie University in Sydney, and US Army Lieutenant Colonel Michael Ferguson, history doctoral student at the University of North Carolina–Chapel Hill, have combined forces to write a new book attempting to follow Fuller's lead and make the ancient art of war more accessible to a contemporary audience. Their work not only focuses on Alexander the Great's campaigns and leadership but also melds ancient history with contemporary events and concepts. Their goal was not to write another biography or military history of Alexander but to highlight select examples of his career that resonate in the modern era.

Yet while the authors lay out a clear description of key elements of Alexander's life and career and mix in several succinct accounts of modern events, the book's dual approach never really unifies around their central intended theme. They do demonstrate how important studying Alexander's life is for today's military leaders, just not as effectively as

1. See J. F. C. Fuller, *Julius Caesar: Man, Soldier, Tyrant* (London: Eyre & Spottiswoode, 1965); and *Generalship of Alexander the Great* (New Brunswick, NJ: Rutgers University Press, 1960).

could have been done. Their attempt to merge modern military and ancient history into a cohesive narrative misses the mark, primarily due to the bifurcated approach.

After an introduction, the authors begin with some background and biographical information, and then, in order to prepare the reader for appreciating the relevancy of Alexander's context, they discuss contemporary military issues in an effort to "offer the reader a deeper appreciation for, and perhaps connection to, the ancient world by showcasing flawed assumptions surrounding divergent trajectories of modern conflict" (34). After explaining the rise of Macedonia and the development of its army in the aftermath of the classical age of Greek warfare, the book turns to surveying innovation and modernization in the modern military, focusing on the notion of the revolution in military affairs, inaugurated in the post-Vietnam era. Three chapters on key Macedonian campaigns are followed by another on modern issues, then another section on Alexander's more distant campaigns, his leadership legacy, and his performance as a strategist.

The sections covering Alexander's conquest of Persia are excellent, with tactical and operational details, maps, and careful analysis using a mix of modern history and ancient sources. The maps are particularly useful in aiding comprehension. The chapters on more recent military events and concepts are not as effective, partly out of a need for brevity but also in the topical structure in which they are couched. This ancient/modern mix is the chief problem with the book; the attempt to connect the Alexander narrative overtly to contemporary events and ideas is rather strained at times, despite frequent use of the "like Alexander" clause. A better approach would have been to mix the modern and ancient factors topically within the same chapter—that is, by extended applicable contemporary passages interlaced within the Macedonian narrative. For example, when discussing reforms and the innovative organization of the Macedonian army, some of the description of the post-Vietnam revolution in military affairs could have been more directly inserted, followed by a comparative section.

Additionally, although Alexander and the US military both campaigned in the Near East, Mesopotamia, and Afghanistan, little attempt was made at comparing the two, other than their shared challenge of confronting different cultures. A more robust examination of the geographic factors in warfare for both ancient and modern armies would have been fascinating. A stronger editing of the text, seeking to mix the two historical approaches, could have enabled the writing and scholarship to be more cohesive.

The authors' call for the careful study of history by modern military practitioners is eloquently aided by their clear writing styles and carefully measured flow of facts and data. The reader is not drowned in detail, nor do they suffer from confusion due to breadth. A succinct, clever conclusion by former US National Security Adviser Lieutenant General H. R. McMaster, himself a history PhD, was a striking way to finish the work.

A detailed book on Alexander's generalship in and of itself is a rich source of lessons learned, inspirational leadership, and brilliant innovation for a modern commander. What would make Ferguson and Worthington's work resonate better with a contemporary reader is if, rather than forcing snippets of modern campaigns into the narrative, its language, structure, and approach modeled more traditional campaign history—the kind of history written by military officers for military officers, using one voice instead of

two. This is what makes Fuller's *The Generalship of Alexander the Great* (1960) so powerful for a military reader and the *Anabasis of Alexander* by Arrian (c. 86–160 CE)—a general like Fuller—stand the test of time. A Landmark version of Arrian, modeled along the lines of *The Landmark Thucydides*, is now available as a wonderfully accessible account of Alexander for today's readers; it would pair quite nicely with Ferguson and Worthington's work and give it a powerful resonance with the distant past.²

Nonetheless, *The Military Legacy of Alexander the Great* would be a useful study for students of history or security studies and would make a good reading for professional military education.

James M. Tucci, PhD

The Coming Wave: Technology, Power, and the 21st Century's Greatest Dilemma

Mustafa Suleyman with Michael Bhaskar. Crown Publishing Group, 2023, 352 pp.

The Coming Wave is a futurist nonfiction science and technology book by Mustafa Suleyman. Suleyman is the cofounder of two artificial intelligence (AI) companies, DeepMind and Inflection AI, and has held multiple AI development and policy positions throughout his career. *The Coming Wave* attempts to stand out among a multitude of emergent technology books written within the past year with its take on how an ensuing technological revolution will result in a far more dramatic impact on humanity than any other in history. Though it offers valuable insights, the book overstates the threat of AI and synthetic biology while proposing containment options that Suleyman admits are unrealistic to implement.

The foundational premise of *The Coming Wave* is that throughout history, there have been “waves” of technological advancement with reverberating effects that altered the course of human history. Suleyman delineates 24 previous general-purpose technologies that have indiscriminately diffused across the globe, with the twenty-fifth currently in progress. He argues that preceding waves ranging from the discovery of fire to the proliferation of the internet have not been as disruptive to human technological evolution as the impending wave, which combines AI and synthetic biology. A convergence of large-scale knowledge systems with genetic modification, as he proposes, will transform the world at an unprecedented pace and with far-reaching, irreversible consequences. Suleyman supports this claim by highlighting the effect economies of scale are having on the increased availability of these technologies. Specifically, he notes the relative ease of acquiring advanced genetic testing equipment that is enabling the establishment of hobbyist biological labs, akin to the early '90s tech sector garage startups. While still a well-intentioned niche market, these home-grown experimentation centers augmented by emergent AI systems could accelerate radical pursuits of human genome modification with potentially disastrous results.

2. *The Landmark Arrian: The Campaigns of Alexander*, ed. James Room and trans. Pamela Mensch (New York: Anchor Books, 2012); and see *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War*, ed. Robert B. Strassler and trans. Richard B. Crawley (New York: Free Press, 2008).

In supporting the premise that the world is amid the next large-scale transformation, Suleyman thoroughly covers numerous examples of previous technologies expanding beyond their original intended use and being adapted for other purposes. This is being played out in the current wave through the widespread adoption and adaptation of large language models (LLM) for uses that promote knowledge discovery and application for both good and bad. The author posits that recent advancements in AI will follow an exponential trajectory, leading to a redistribution of wealth and power that could disrupt the existing geopolitical order in favor of small nation-states and nonstate actors. This redistribution would give ambitious actors the ability to not only fund but also rapidly develop and scale capabilities favoring their ideological use cases.

This background effectively establishes the foundation for Suleyman's argument for containing the impending technological wave and limiting its potentially disastrous effects. Yet Suleyman immediately undermines his efforts to rally humanity to his cause by highlighting that previous technological containment has largely failed. One example he provides is the Ottoman Empire's thwarted attempt to restrict the effects of the printing press, specifically to ban Arabic writing.

Acknowledging the complexity of the task at hand, the author primarily focuses on topics that present a worst-case scenario and neglects substantive discussions on the positive aspects of the technology. For example, his proposed vision of deep surveillance states or an "East India Trading Company" consolidation of corporate influence, while plausible, is representative of a superficial omission of incremental adaptation of these technologies as an opportunity for divergent outcomes. Ultimately, Suleyman's attempts to include counterarguments to the overly pessimistic stance are not as impactful as the arguments for a worst-case scenario and, in the end, do not provide enough balance to overcome the alarmist tone. These views also neglect to support a relevant way forward. The author proposes 10 steps to contain the rapid expansion of technology, ranging from technological safeguards and government regulation to cultural changes and large-scale movements. Most, if not all, of these steps are grandiose and largely unattainable because of the bureaucracy and cost associated with implementing them. The author rightly acknowledges the near impossibility of such an effort but admirably persists in his recommendation anyway. While the steps for containment have solid support, they should not be viewed as the ultimate guide. Instead, as he mentions in chapter 13, these steps should serve as a catalyst for further conversation.

As a thought experiment based on the content in the book, I asked Google's latest LLM, Gemini Advanced, if it agreed with the arguments presented in the book. Its output: "It's difficult to give a definitive yes or no to whether I agree fully with *The Coming Wave*." It then explained why it could not fully agree or disagree: "I don't form my own beliefs or opinions in the same way a human does. I process information and provide responses based on patterns and probabilities in the data I've been trained on."²

These responses illustrate two concepts from the book. The first is an attempt at technological containment by putting guardrails in place to control the output from

2. Text generated by Gemini, Google, February 4, 2024, <https://gemini.google.com/>.

LLMs. The second is the drive for corporate-aligned interests and protectionism by preventing copyright material from being used. There is movement in the right direction, as Suleyman states, and his steps to containment are a starting point. Ultimately, the author's assessments, based on research and personal experience, are well-intentioned. But the future is incredibly difficult to predict, and this next wave as he describes it may or may not come to pass.

The book tends to be a bit repetitive throughout and seems to emphasize the main points with excessive reasoning. This over-justification tends to be monotonous and can read as a desperate attempt to support the book's main stance. This does little to help Suleyman overcome the tendency common among leaders to reject narratives seen as negative—what he calls “pessimism aversion”—which he seeks to avoid. Furthermore, as Suleyman comes primarily from an AI background, detailed discussions of synthetic biology are missing from the text, which can at times cause a lack of focus and distraction when the subject is briefly reintroduced.

Still, Suleyman presents solid and extensively researched concepts that provide an ideal starting point for discussing the proper implementation of this new technological frontier. While *The Coming Wave* presents valuable insights, it ultimately tends to be overly alarmist and is unlikely to attract a wide audience outside of technologist communities.

Captain Brad Worley, USAF

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