

Campaign, Operation, and Battle Analysis

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"My son should often read and meditate on history; it is the only real philosophy. And he should read and meditate on the campaigns of the Great Captains. This is the only way to learn the art of war."

Napoleon

Napoleon's sage advice to his son to learn the art of war by studying the campaigns of the Great Captains remains as relevant today as it was in the early 19th century. Military planners can learn the "art of the possible" through analysis of campaigns, operations and battles across the spectrums of conflict and time. Studying the rich history of past campaigns, operations and battles imprints patterns of vicarious military brilliance that can be exploited in time of need. Alexander's battle at Gaugamela and his Persian campaign, Hannibal at Cannae and his Italian campaign, Napoleon at Ulm, Nelson at Trafalgar, MacArthur at Inchon, Mao in China, Giap in Vietnam and Schwarzkopf in Operation DESERT STORM provide examples of applied operational art at its finest. Contrarily, understanding neglected planning factors, "for want of a nail" miscalculations, and poor decisions that served as the root causes of defeat also provide enormous insight to planners. Custer at the Little Big Horn, Santa Anna in Texas, Napoleon and Hitler in Russia, and the U.S. in Vietnam exemplify just a few warnings to attentive operational planners. Synthesizing the facts of history with theory, principles, facets of operational art and other analysis factors provide modern military planners with the tools to better solve the complex conflict issues of the 21st century world.

The purpose of this essay is to provide the student of operational art with a methodology to conduct Campaign, Operation and Battle (hereafter referred to as COB) analysis. Although the primary audience is the intermediate-level war college student, tactical- and strategic-level professional military education students can benefit from it as well. COB analysis consists of the deliberate, systematic study of campaigns, operations and battles across the range of military operations.¹ While it brushes against the strategic and tactical levels of conflict, its primary focus is at the operational level. It leverages the work of military historians' descriptions of *who*, *what*, *when*, and *where* events happened to determine *how* and *why* in order to refine theory and principles and derive lessons for future application. COB Analysis seeks insight into the linkages between cause-and-effect within the context of means and ends. Cognitively pre-loaded with comprehension of past conflicts, military planners and leaders can then draw on a reservoir of recognition-primed² patterns for planning and execution.

Earlier Approaches

While the goals of campaign analysis are well understood, mixed guidance exists on *how* to effectively do it. The contributions of three key contributors—a theorist, military historian and serving military officer—are first reviewed before establishing a synthesized methodology for modern COB analysis.

In his discussion of Critical Analysis, Carl von Clausewitz, the theorist of the three,³ provided general guidance in the form of a three-step approach:⁴

- First, the discovery of and interpretation of unequivocal facts.
- Second, the tracing of effects back to their causes.
- Third, the investigation and evaluation of means employed.

Clausewitz saw theory as both the starting and ending point of critical analysis. Without at least a working theory, criticism could have no basis. On the other end, only an output of refined theory provided the military practitioner with an aid to judgment. Clausewitz proposed two aspects of critical analysis. The connections between both cause-and-effect and means-and-ends were important in order to obtain a holistic judgment. However, he recognized that all facts could not be known and warned against conjecture in filling the cause-and-effect gaps. While Clausewitz's guidance is helpful in general terms of cautions and recommendations, it falls short in details as a military primer for operational analysis.

The 19th century German historian Hans Delbrück built upon Clausewitz's guidance. Rather than merely accepting often-exaggerated claims of historians-past, Delbrück was careful to first validate the accounts in terms of the laws of war, numbers, weapons, terrain, time-distance and tactics. For example, Delbrück was able to refute Herodotus' claim that the Greeks faced 2,641,610 troops under Xerxes by showing that their marching column would have spanned 420 miles, strung out from Susa to Thermopylae, at the commencement of the battle.⁵ This process, known as *Sachkritik* (factual criticism),⁶ was an important addition to the established method of source criticism. Delbrück realized that, "before any general conclusions could be drawn from the wars of the past, the historian must determine as accurately as possible how those wars had been fought." Given historically accurate accounts, Delbrück was also able to determine patterns in similar campaigns and battles across time "in which the conditions of earlier battles were reproduced almost exactly,"⁷ enabling a rudimentary correlation of theory and principles through comparative analysis.

More recent guidance was contained within Lieutenant Colonel John Votaw's "An Approach to the Study of Military History."⁸ Votaw, a then-serving officer at West Point, provided several approaches to battle and campaign analysis centered on various organizational schemes. One way of organizing the analysis was around the *Commander's Estimate of the Situation (CES)*. In this approach, the analyst asked and answered key questions:

- Who was involved?
- What happened?
- When did it happen?
- Where did it happen?
- How did the action develop?
- Why did things progress as they did?
- What was the significance of the action?

Votaw saw this basic journalistic practice as a systematic way of analyzing campaign and battle action.

He advocated a second approach using a narrative technique. In this method the organization centered on:⁹

- Evaluation of the strategic situation
- Review of the tactical setting
- A listing of other factors affecting the event
- A statement of the historical lessons
- An assessment of the significance of the event

This approach essentially built upon a narrative description of events, but also required a higher level of cognitive processing on the part of the practitioner in that the ability to synthesize and evaluate material was also required.

Votaw also recommended a third approach—an analysis organized around critical decisions. This technique, also useful in leadership studies, tactical decision games and staff rides, began with an assessment of the strategic and operational setting, the commander's mindset, what he knew at the time, and his plans. Judgments of the commander's subsequent decisions within the situational constraints of the event were then evaluated. It involved putting one's self in the mind of the commander, enabling the practitioner of operational art to vicariously experience and learn from warriors of the past.

As for the mechanics of operational analysis, Votaw recommended two sets of factors for the study of history, also relevant to operational analysis. The first set was an inquiry based upon the ten "threads of continuity,"¹⁰ as taught at West Point. The threads of continuity consisted of:

- Military theory and doctrine
- Military professionalism
- Generalship
- Strategy
- Tactics
- Logistics and Administration
- Technology
- Political factors
- Social factors
- Economic factors

Votaw acknowledged that the threads had no inherent worth; they merely served as a means of placing events in perspective. The primary benefit of their use was in recognizing key changes in military affairs across history. They served as enduring threads that helped identify transformation in comparisons between different warfare ages.

The second set of factors for analysis consisted of the principles of war. Although Jomini's controversial legacy¹¹ remains an issue of debate among military scholars and practitioners, few have offered an improvement over principles of war as an analytic means to study and design operations. Votaw saw the principles of war as useful in more deeply exploring the military theory and doctrine thread of continuity. Ironically, this resulted in a synthesis between Jomini's

scientific “principles of war” approach and Clausewitz’s more guarded methodology. Clausewitz, Jomini’s greatest critic, warned:

All the positive results of theoretical investigation—all the principles, rules, and methods—will increasingly lack universality and absolute truth the closer they come to being positive doctrine. They are to be used when needed, and their suitability in any given case must always be a matter of judgment. A critic should never use the results of theory as laws and standards, but only—as the soldier does—as aids to judgment.¹²

With this warning in mind, we now turn to a modern methodology that builds upon the work of Clausewitz, Delbrück and Votaw.

Methodology

A methodology for COB analysis needs to be specific enough to guide the student through the steps required to produce a finished product, yet not so pedantic that it stifles creativity or forces a course of analysis not conducive to the unique situational requirements of the COB under study. A methodology for COB analysis is outlined below. Each of the steps is discussed in succeeding paragraphs.

- Select COB
- Conduct general research and choose sources
- Develop draft thesis and outline
- Develop working narrative and Commander’s Estimate of the Situation
- Write the strategic setting, operational situation and plan summary
- Select appropriate analysis factors
- Conduct analysis using narrative and CES as supporting evidence
- Write (or re-write) the introduction and conclusion
- Refine thesis

Select COB

The first task of the student of COB analysis is selection of a COB that meets the assignment parameters. Typically, when given the freedom to choose a COB, many students select one in which they themselves are interested, whether by virtue of their own participation, that of a family member or friend, or general curiosity. The advantage of this approach is twofold; the practitioner is generally more enthusiastic and serious about the COB and secondly, may have access to unpublished primary source material. The disadvantage is that it can result in a hackneyed rehash of fighting the last-war.

Conduct General Research and Choose Sources

With the decision of selecting a COB made (or, in an effort to find a suitable COB), the practitioner should then begin general research on the topic. A good place to start is the *Reader’s*

Guide to Military History.¹³ More than 500 topics are discussed, each in a page or more of text. Each entry begins with an excellent bibliography of well-regarded references followed by a discussion of the conflict in terms of the cited sources and, perhaps most importantly to the practitioner, an assessment of the quality of those sources.

Armed with a good bibliography, the COB analyst is then ready to work with a research librarian to find additional materials that bear on the assignment. Even in the information age with the seemingly ubiquitous internet, a good research librarian not only saves a great deal of time, but is invaluable in finding those gems of sources out of the public view. From unpublished manuscripts and archived material to military journals and popular press articles, a research librarian will almost always find more and better sources than one could on one's own.

It is often good to check the biography of authors and reviews of their books to determine credibility and potential bias. "Consider the source," is also important when looking at articles as some publications are editorially biased.

In addition to a span of sources that comprehensively cover the period under study, the student should also seek sources that provide strategic, operational and tactical depth to the investigation. The lion's share of the research material should be at the operational level, but strategy and tactics do play into the analysis. General familiarity in the form of an overview of the COB should be the goal at this point of the process.

Develop Draft Thesis and Outline

Expressing the central idea or main point of a COB analysis in a one-to-two sentence thesis statement is seemingly the easiest step in the process, yet often is the greatest source of frustration. A thesis statement is important in that it clearly and concisely articulates the purpose of the paper, answering the key question that drove the research in the first place. A good thesis statement expresses one main idea, takes a position on a topic and asserts a conclusion about it. A thesis statement is based upon informed, well-reasoned and supported evidence. Initially, one should not worry about getting the thesis statement perfect, as it will likely change as more is learned about the COB. A draft will do to get things started.

With the end in mind in the form of a thesis statement, an outline provides the student with a plan to get there. A general outline for an operational analysis paper is shown below. It is based upon a 12-15 page written requirement for intermediate-level war college students engaged in study of the operational level of war. Given the general nature of the headings, this outline is flexible enough to accommodate a paper of indeterminate length, ranging from a couple of pages to a book. Obviously, it would need to be made specific to the COB under study. But even superficially, it provides the student with a roadmap of where he is going, and the places he will have to visit in his research.

- Thesis statement
- Introduction
- Strategic setting
- Operational situation and plan summary

- Analysis
- Judgments
- Conclusion

Develop Working Narrative and Commander's Estimate of the Situation

A working narrative is a critical intermediate step of a COB analysis. It provides the evidentiary support of a student's arguments. Normally, the questions posed in a CES serve as a good starting benchmark. A narrative that answers the *who, what, when, where* and *how* of key events serves as a baseline of effects from which one can then investigate causal relationships. As Delbrück pointed out, factual accuracy must be near absolute for any meaningful conclusions or judgments to be reached.

In crafting the narrative, particular attention should also be paid to breaking out key strategic, operational and tactical events and factors. As discussed in the preceding section, a COB analysis needs to be discussed in its proper strategic and operational context.

Write the Strategic Setting, Operational Situation and Plan Summary

A COB analysis must be framed within its strategic and operational context. At the strategic level, the geo-political situation on both sides of the conflict, war aims of the belligerents, and the military commander's strategic guidance from his political leadership are key stage-setters for the COB analysis.¹⁴ Similarly, identification of key geographical features, decisive points, use of interior versus exterior lines, and net assessments of the belligerents provides critical information to understanding the operational situation. An overview of critical humanography¹⁵ should also be explained, particularly in Military Operations Other Than War (MOOTW).

One of the most important parts of a COB analysis is understanding the plans of the belligerents. Understanding the initial plan is critical if any insight is to be gained of cause-and-effect relationships. Armed with the plan, a comparison of action intended to what actually happened during a COB can be conducted. Planning assumptions, constraints and restraints, and the means available are all often neglected, but nonetheless key aspects, of a plan and subsequent analysis.

Select Appropriate Analysis Factors

In simplest terms, analysis is defined as the "separation of a whole into its component parts."¹⁶ There are many types of analysis, however. Depending upon the field of study, analysis takes on a form specific to the unique characteristics of the discipline. For the military practitioner, historical analysis is used to provide better insight into cause-and-effect relationships from past wars. Armed with this knowledge, the military practitioner can then apply synthesized causal factors to achieve desired effects in future wars.

There are number of ways a COB analysis can be organized. In the sections that follow, several organizing constructs are discussed along with some key considerations in their employment.

Analysis by Facet

One way of organizing an analysis is in the form it will be applied. An analysis using the Facets of Operational Art, listed below, has the advantage of applying doctrinally approved¹⁷ factors used in joint COB planning:

- Synergy
- Simultaneity and Depth
- Anticipation
- Balance
- Leverage
- Timing and Tempo
- Operational Reach and Approach
- Forces and Functions
- Arranging Operations
- Centers of Gravity
- Direct versus Indirect
- Decisive points
- Culmination
- Termination

As one would expect, the facets of operational art are principally pertinent at the operational level of war, but some of them, such as Centers of Gravity and Direct versus Indirect, have utility at the strategic level as well. Similarly, facets such as Decisive Points, Timing and Tempo, and others are also useful for tactical planning considerations. However, an analysis using the facets of operational art has some drawbacks. By themselves, the facets only obliquely address some of the key principles of war, discussed in the next section. For example, surprise and deception, two key aspects of leverage, are buried in “Other Considerations,” in a long list of Key Planning Considerations.¹⁸

Analysis by Principle

A time-honored analysis approach is by way of the **principles of war**. According to Joint Publication 3-0, *Doctrine for Joint Operations*, “The principles of war guide warfighting at the strategic, operational, and tactical levels. They are the enduring bedrock of US military doctrine.”¹⁹ Although the principles of war differ by nation²⁰ and have mutated some from Jomini’s initial conception of them as maxims,²¹ the American principles of war²² listed below have enjoyed a measure of stability in modern times:

- Objective
- Offensive
- Mass
- Economy of Force
- Maneuver
- Unity of Command
- Security

- Surprise
- Simplicity

Nonetheless, just as the facets of operational art have several deficiencies, so do the principles of war. For example, the principle of offensive is biased against the defensive. However, there are situations in which a defensive plan is altogether appropriate. Another shortfall is that fires are only discussed in the context of maneuver. Additionally, although the purpose of unity of command is to ensure unity of effort, identifying the principle solely as unity of command oftentimes leads to a self-serving focus on centralization for its own sake.

Counterterrorism, counterinsurgency, peace operations, humanitarian assistance and noncombatant evacuation operations are just a few examples of operations outside of conventional operations that require military planning and involvement. The principles of Military Operations Other Than War (MOOTW), listed below, provide a useful template for analyzing and planning these operations:

- Objective
- Unity of Effort
- Security
- Restraint
- Perseverance
- Legitimacy²³

While the first three MOOTW principles are virtually identical to their conventional warfighting counterparts, the last three are very different, with the last one, legitimacy, seemingly unrelated to military operations. This points out the necessity of choosing factors that are appropriate to the type of conflict under study. While legitimacy might have little to do with Arms Control (one of the types of MOOTW) it has everything to do with an insurgency. Additionally, while simplicity isn't a principle of MOOTW, it does not suggest it is inapplicable to MOOTW planning.

Analysis by Human Factors

Human factors have always been important in warfare. As far back as the Warring States period (453-221 B.C.) of Chinese history, military theorists and practitioners openly discussed the critical role of human factors in the preparation and conduct of war. As Samuel B. Griffith summarized in his introduction to *The Art of War*, "Sun Tzu realized that an indispensable preliminary to battle was to attack the mind of the enemy."²⁴ However, it wasn't until the late 19th century, with the emergence of psychology as a science, that military theorists and analysts finally had a scientifically-based lexicon and set of tools to discuss what Clausewitz agonizingly²⁵ referred to as the "moral" factors. At the dawn of the 21st century, a human factors renaissance has occurred in the study of military affairs.

Spurred by difficulties in planning for and countering both a complex global terrorism movement and a difficult insurgency in Iraq, American planners have looked to the past and the present for answers. New efforts in understanding human factors in conflict are evident in the emergence of cultural intelligence, the psychology of terrorism and an appreciation for language at the war

colleges. A revival of interest in the Marine Corps' *Small Wars Manual*,²⁶ which captured the lessons of the banana wars, has been accompanied by fresh looks at past insurgencies such as the French Peninsular Campaign, the British success in Malaya, and the French failure in Algeria. Similarly, a renewed interest in classic works on terrorism, such as Bernard Lewis' *The Assassins*,²⁷ has been matched by a plethora of new works on the subject.

Human factor analysis in a COB can come in many forms. A few are listed below:

- Culture
- Religion
- Will
- Leadership
- Personality Traits
- Human Needs (as in Maslow's hierarchy of needs)
- Emotion (fear, panic, courage)
- Discipline
- Cohesion, Morale and Esprit de Corps

Analysis by Function

Campaign planning requires the integration of otherwise disparate efforts. A functional approach to warfighting not only provides synergy to planning but also enables an assessment of a plan's feasibility, acceptability and completeness. Given the importance of functional integration to planning, a deeper understanding of its rudimentary aspects is attained through functional COB analysis.

The Marine Corps uses the six warfighting functions, listed below, as a means to integrate campaign planning:²⁸

- Command and Control
- Maneuver
- Fires
- Intelligence
- Logistics
- Force Protection

An example of the utility of a functional approach to campaign planning is illustrated in Marine Corps doctrine, *Campaigning*.²⁹ The functional concept of operational maneuver is explained in an analysis of MacArthur's brilliant Inchon landing. A disadvantage of a strict functional approach, however, is that the analysis may ignore a critical emerging function, such as Information Operations at the dawn of the 21st century, simply because it didn't make the "list." It may also share the fate of a facets-only approach, by ignoring key principles such as surprise.

Transformative Analysis

Periods of great change, whether due to technology, ideological and societal upheavals, or new, deeper understandings of otherwise general topics, may demand an altogether new set of factors. New paradigms often require new terms to describe the workings of emerging ways of war. For example, John Boyd introduced the Observe-Orient-Decide-Act (OODA) loop as a way of explaining the decision cycle in air-to-air combat. This idea eventually found its way into network-centric warfare and morphed into the concept of speed-of-command.³⁰

Looking at past battles in new terms may help not only in establishing context for new ideas, but may also provide deeper understanding of previously notional considerations. However, a risk to this approach is that it is susceptible to the “old wine in new bottles” trap. If the new factors obfuscate terms which were previously completely satisfactory, they should be rejected. An example of old functions passed off as new was found in *Joint Vision 2010*. The addition of adjectives “dominant” to maneuver, “precision” to engagement, “focused” to logistics, and “full-dimensional” to protection added precious little to the functions of maneuver, engagement, logistics and protection.

Hybrid Analysis

The last way discussed (certainly, there are many others) to organize a COB analysis is through a hybrid approach. As an example, the “Ten Threads of Continuity” are actually a hybrid set of factors, ranging from human factors (generalship, social factors), functions (logistics and administration) and facets (strategy and tactics), to elements of national power (political, social and economic factors). A hybrid approach allows one to select those criteria most relevant to the COB. Given that every COB is unique in some fashion, a hybrid approach is not only justifiable, but recommended, in order to bring out the salient characteristics of the particular conflict.

Once the analysis factors have been selected, the practitioner of operational art is ready to conduct the analysis.

Conduct Analysis Using Narrative and CES as Supporting Evidence

Once the factors have been selected, the analysis can begin. Under the heading of each factor, the cause-and-effect relationships associated with each should be explored, with narrative events used as supporting evidence. While a narrative approach is useful in temporally understanding key events, it is of marginal utility in the application of operational art and the formulation of campaign and operational plans. Narrative analyses rarely provide much insight to COB planners.

It is critical that each section be written from the perspective of the analytic factor with the narrative as evidence, rather than a narrative discussion with analytic factors embedded within. Answers to the questions of “how,” “why,” and “so what” are the focus. In addition to exploring each analytical factor, relationships between them also produce useful insight. Relationships between factors can be discussed in a separate section on applications, judgments or take-aways.

The answers to the CES questions will also prove handy in the discourse of each analytic factor. The previously developed narrative of key events, initially developed as a useful temporal collection of evidentiary support for your analysis, may also be of value as an appendix to the paper.

Write (or Re-write) the Introduction and Conclusion

It is usually a good idea to write, or re-write, the introduction and conclusion last. The introduction should include the thesis statement in either the first or second paragraph. Many authors prefer to begin the paper with a paragraph containing a “grabber” to peak reader interest in the paper and discuss its context so that the thesis statement will make better sense. Others prefer a head-on approach with the thesis in the first paragraph. The choice is a matter of style. However, at a minimum, the introduction must “tell ‘em what you’re gonna tell ‘em.”

Similarly, the conclusion should succinctly drive home your major points. Often, a conclusion will contain the constraints and restraints of an analysis, providing practical limits on both the lessons derived and their utility to future operations. It may even leave the reader with key questions left unanswered in the analysis, while still providing a bridge for further research.

Refine Thesis

Finally, with the introduction and conclusion written (or rewritten), the thesis should be reviewed and refined for clarity, succinctness, and harmony with the rest of the paper. A byproduct of good writing is a tightening of one’s thoughts in communicating major points, evidence, ideas and conclusions. One should apply this enhanced focus towards distilling the thesis statement to its absolute essence. Given that the focus of a COB analysis hinges on making the case of the thesis, one should afford extra time and effort to its refinement.

The first draft should be complete. Set it aside for a couple of days. Have trusted agents provide comment, then read your paper with their comments in mind, edit it and re-write it. Good writing is an iterative process.

Conclusion

Napoleon was right. We can learn much from the study of the great captains and their conduct of past wars. COB analysis enables practitioners of war to stand on the shoulders of historians and discern the lessons of military operations in terms of actionable operational art. This paper provides a methodology by which students of operational art can glean those lessons and apply them in planning for future conflict. In the words of the immortal Carl von Clausewitz, “No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his own mind what he intends to achieve by that war and how he intends to conduct it.”³¹

Notes

1. At the time of this writing, official joint doctrine (Joint Pub 3-0, *Doctrine for Joint Operations*) defined the range of military operations as War and Military Operations Other Than War (MOOTW). It is anticipated that the next update to Joint Pub 3-0 (a final coordination draft was released on 23 December 2005) will redefine the range of military operations as: 1) Military Engagement, Security Cooperation and Deterrence; 2) Crisis Response and Contingency Operations; and, 3) Military Operations and Campaigns. Given that “Draft Publications do not represent official joint doctrine and cannot be used as an authoritative source,” this article uses the language and definitions of the current version of Joint Pub 3-0, *Doctrine for Joint Operations*, signed 10 September 2001.
2. Gary A. Klein, “Strategies of Decision Making,” *Military Review*, May 1989, 56-64.
3. As a point of fact, Clausewitz was also a historian and serving officer. Nonetheless, it was his contributions as a theorist for which he is most renowned.
4. Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976), 156-169.
5. Gordon A. Craig, “Delbrück: The Military Historian,” edited by Peter Paret, *The Makers of Modern Strategy*, (Princeton NJ, Princeton University Press, 1986), 326-353.
6. Gunnar Arteus, “Military History, A Historiography,” <http://www.fhs.se/upload/Utbildning/Dokument/Publikationer/MHT/arteus.doc>.
7. Craig, “Delbrück: The Military Historian,” 332.
8. John E. Jessup and Robert W. Coakley, *Guide to the Study and Use of Military History*, (Washington, DC, Center of Military History, United States Army, 1988, U.S. Government Printing Office, Washington, DC, 20402), Chapter 3, pages 41-56, <http://cgsc.leavenworth.army.mil/carl/resources/csi/content.asp#jessup>.
9. *Ibid.*, 52.
10. *Ibid.*, 47-48.
11. Brig. Gen. J. D. Hittle, “Jomini and His Summary of the Art of War,” in *Roots of Strategy: Book II*, edited by John N. Greely and Robert C. Cotton (Harrisburg, PA: Stackpole Books, 1989), 461.
12. Clausewitz, *On War*, 157-158.
13. Charles Messenger, Ed., *Reader’s Guide to Military History*, (Chicago: Fitzroy Dearborn Publishers, 2001).
14. The questions provided in this section are from the Campaign Analysis model used at the Air Command and Staff College for AY 2004-2005 and “Campaign Analysis Format” used at the USMC Command and Staff College for AY 2005-2006. Special thanks to Dr. John R. Reese, Chairman, Department of Joint Warfare Studies at the USAF’s ACSC for the former.
15. The author refers to “humanography” as important cultural and demographic information. The use of this term is also deliberate as a means of imagery and to add emphasis to these often neglected aspects of COBs.
16. Merriam-Webster Online Dictionary, <http://www.m-w.com/dictionary/analysis>.
17. Joint Publication 3-0, *Doctrine for Joint Operations*, 10 September 2001, III-9 to III-25. It is interesting to note that the update to JP 3-0 (Revision Final Coordination, 23 December 2005), in its draft form, describes these same factors as *operational design elements*.
18. *Ibid.*, III-34 to III-37.
19. *Ibid.*, A-1.

20. For a comparison between principles of war for the US, UK, Former Soviet Union, France and the People's Republic of China, see <http://www.au.af.mil/au/awc/awcgate/prinwar.htm> (from Armed Forces Staff College Publication 1, *The Joint Staff Officer's Guide*, 1997).
21. Baron Antoine-Henri De Jomini, *The Art of War*, translated by Capt G. H. Mendell, USA and Lt W. P. Craighill, USA, (West Point, 1862, The Project Gutenberg EBook of The Art of War, September 28, 2004), [EBook #13549] http://www.gutenberg.org/files/13549/13549-h/13549-h.htm#CHAPTER_III.
22. Joint Pub 3-0, *Doctrine for Joint Operations*, A-1 to A-2.
23. Ibid., V-1 to V-3.
24. Sun Tzu, *The Art of War*, translated by Samuel B. Griffith, (New York, NY, Oxford University Press, 1963), 41.
25. In his chapter on "Moral Factors (pages 184-185)," Clausewitz explained the great importance he attached to them in the study of war. Yet, his frustration in explaining them was evident in the chapter's closing paragraph; "We might list the most important moral phenomena in war and, like a diligent professor, try to evaluate them one by one. This method, however, all too easily leads to platitudes, while the genuine spirit of inquiry soon evaporates, and unwittingly we find ourselves proclaiming what everybody already knows." Psychology as a science didn't begin to emerge until several decades after his death.
26. Fleet Marine Force Reference Publication 12-15, *Small Wars Manual*, (U.S. Government Printing Office, Washington, DC, 1940).
27. Bernard Lewis, *The Assassins*, (387 Park Avenue South, New York, NY, Basic Books, 2003).
28. Marine Corps Doctrine Publication 1-2, *Campaigning*, 01 August 1997, 76.
29. Ibid.
30. See David S. Alberts, John J. Gartska, and Frederick P. Stein, *Network Centric Warfare: Developing and Leveraging Information Superiority*, (Washington DC, CCRP Publication Series, 1999), 163-166.
31. Clausewitz, *On War*, 579.

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