

Uncovering Hidden Patterns of Thought in War

Wei-Chi versus Chess

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We use metaphors and analogies to help us connect the dots and uncover hidden patterns of thought. They provide us with a way to go far beyond the meaning of words and

are tools guiding the manner in which we think and act. Gen. David Perkins describes how the U.S. Army Training and Doctrine Command is preparing the Army for the future of warfare in "Big Picture, Not



Details, Key When Eyeing Future.” Perkins uses metaphors as he compares warfare to checkers and chess:

Checkers and chess are played on the same style board but the games are far from similar. For a long time, the Army has designed forces based on a “checkers-based” world outlook. Today, we’re switching to a “chess-based” appreciation of the world. In this world, there are many paths to victory; few events allow for linear extrapolation. Victory no longer comes from wiping out an opponent’s pieces, but by removing all his options. By employing pieces with varying capabilities in a concerted manner, one creates multiple dilemmas that over time, erode a challenger’s will to continue.¹

Perkins is attempting to use an argument from analogy; however, this is a false analogy. He is attempting to compare the U.S. Army’s contemporary outlook on war to that of the board game checkers and compares the future outlook to chess. I argue that the U.S. military already designs forces using a chess-based outlook, not checkers. The U.S. military and Western way of war is a theoretical expression of Carl von Clausewitz and Antoine-Henri Jomini.² Taking a Clausewitzian approach is similar to chess, whereby you focus the energy of your forces on a center of gravity (COG). The fixation on COG has led to a number of costly disasters for the U.S. military. Examples include conflicts in Vietnam, Iraq, and Afghanistan. Examining the “Strange model” for conflicts in Iraq (1991 and 2003), Robert Dixon writes,

The fixation on the Republican Guard (operational COG) and Baghdad (the strategic COG) led leaders to ignore the emergence of something that did not fit their template. This is the true danger of the term: while looking for Clausewitz’s focal point (something central, the source of all power, the hub, etc.) leaders forget that they are not observing a static system. Dynamic systems do not have centers, and if they did it would constantly move.³

Soldiers assigned to 3rd Squadron, 3rd Cavalry Regiment, conduct an operations brief 15 February 2018 during Decisive Action Rotation 18-04 at the National Training Center in Fort Irwin, California. (Photo by Spc. Esmeralda Cervantes, U.S. Army)

Perkins is actually moving strategy back to the chess-based outlook used by Gen. William Westmoreland in Vietnam. Evidence of this can be found in the new Field Manual (FM) 3-0, *Operations*. FM 3-0 signals a shift in military strategy and a focus back to that of large-scale ground combat operations against near-peer threats, where belligerents possess technology and capabilities similar to the U.S. military. Gen. Mark Milley, the Army’s chief of staff, discussed the new FM and remarked, Adversaries including Russia, China, Iran and North Korea have spent nearly two decades studying the U.S. military’s strengths and vulnerabilities as it has fought terrorist groups. Those nations have invested in modernizing their forces and preparing them to exploit vulnerabilities developed while the United States focused on fighting insurgents.⁴

The U.S. military, just as in chess, focuses on the centrality of physical force and maintaining an edge in capabilities; yet, it is weak in regards to strategy and stratagem.⁵ I argue that, to truly understand threats such as North Korea and China, we must shift from a chess-based approach to a *wei-chi* approach; this is where we will find a true understanding of complexity. Where chess is a game of power-based competition representing the American way of war, *wei-chi* is a skill-based game representing the Chinese way of war.⁶ Furthermore, an understanding of *wei-chi* will help us bridge the gap between how the U.S. Army perceives conflict and how our threats perceive conflict. It is only through a deep metaphorical understanding of this topic that we can uncover our hidden patterns of thought in war.

The Cynefin Framework

Militarily, we succeeded in Vietnam. We won every engagement we were involved in out there.

—Gen. William Westmoreland⁷

H. W. Dettmer describes the Cynefin framework as a sense-making framework providing leaders with a way to identify the correct tools, approaches, and methods that are likely to work in any given domain. In this framework, no one cell is more valuable than another.⁸ The framework possesses five domains: simple (or obvious), complicated, complex, chaotic, and disordered.

The Cynefin framework helps us when identifying both the state of knowledge and state of available

Table 1. Five Domains of the Cynefin Framework

Domain	Definition	State of knowledge and information	Military theorist for domain	Metaphor for domain (games)
Simple	Systems are stable. Cause-and-effect is clear.	Right answer is easy to identify. Information needed is available and we have it.	Antoine-Henri Jomini	Checkers
Complicated	Domain of experts and continuous process improvement.	There is no single right answer. We know the information we need, but we don't have the answer.	Carl von Clausewitz	Chess
Complex	Difficult to differentiate between complicated and complex domains. This domain is where Complex Adaptive Systems (CAS) thrive.	The right answer is hard to identify. The information we need is out there somewhere, but we don't know what we are looking for.	Sun Tzu	Wei-chi
Chaotic	Realm of the unknown. Understanding of a cause-and-effect relationship is typically useless.	We don't know what we don't know. We don't know what to ask.	John Boyd	Diplomacy
Disordered	Domain to avoid—organizations can easily slip into this domain from any other.	Extremely difficult to recognize this domain.	Genghis Khan	Twister

(Table by author)

Table 2. Three Phases of Chess

Phase	Description
Opening	The strategic aim focuses on four components: development (move pieces on useful spaces to influence the game), control of the center, king safety, and pawn structure.
Middlegame	The phase of the game when most combinations or attacks occur.
Endgame	The aim of this phase focuses on two primary components: importance of the pawn (they become more important during the endgame) and the king (center of gravity).

(Table by author)

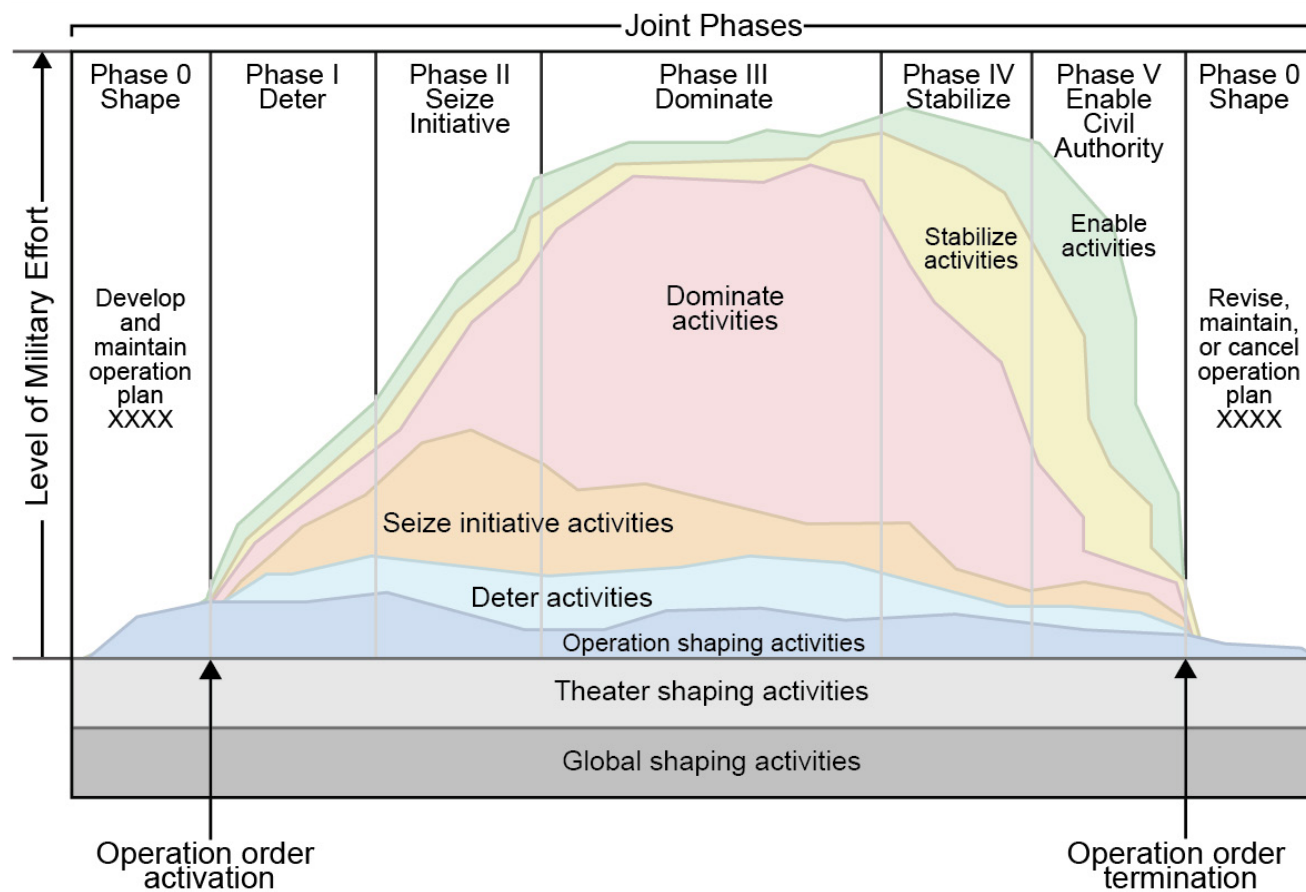
information for a problem; essentially, identifying the state of what is certain to what is uncertain.⁹ Table 1 describes each domain within the Cynefin framework.¹⁰

The U.S. military seeks a strategy for complex problems, and chess deals with complicated issues. Evidence of this is within the game itself. As we initiate a game of chess, we first start with all the pieces on the board; hence, we have the information, just not the

correct answer. Compare this to the game of wei-chi, where we start a game with no pieces on the board; the information is out there somewhere, we just do not know what we are looking for.

Chess—Center of Gravity

In chess, the underlying philosophy is winning through decisive victory with a clear objective in



(Figure from Field Manual 3-0, Operations)

Figure 1. Notional Large-Scale Combat Joint Phasing Model

capturing the enemy king and destroying enemy forces.¹¹ Chess is a linear game with a simple center of gravity (COG)—the king. We initiate a game of chess with all the pieces on the board, seeking then to move forward linearly in a war of attrition. As described in table 2 (on page 20), chess is typically divided into three distinct phases: opening, middlegame, and endgame.¹²

FM 3-0, Operations, Compared to Vietnam-Era Doctrine

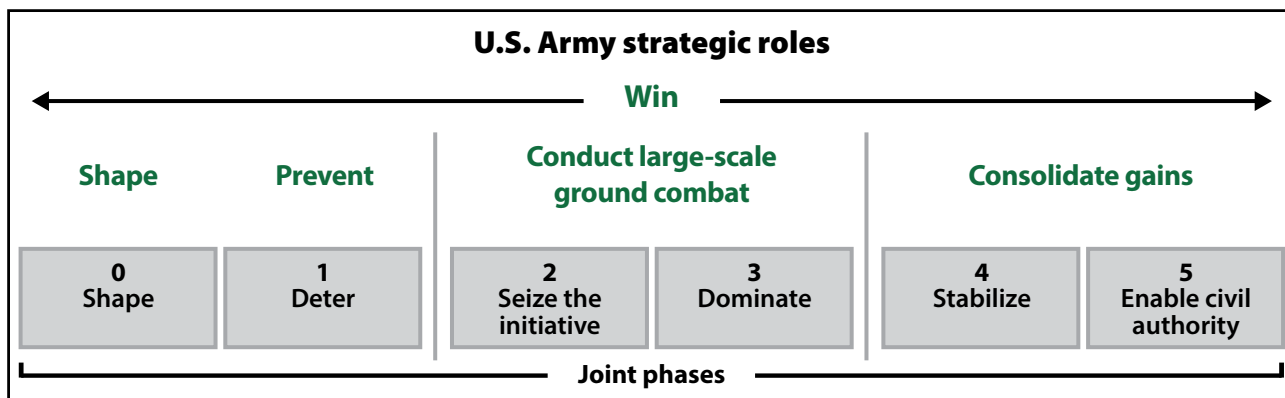
It appears as though we have decided that insurgents are no longer a threat and would rather fight a near-peer enemy. FM 3-0 provides an interesting comparison to chess when comparing its phases to the shift to large-scale combat.

As depicted in figure 1, the joint phasing model moves through a linear approach similar to the three phases of chess.¹³ To further illustrate this point, let's

examine the specific roles of the U.S. Army (see figure 2, page 22).¹⁴

The strategic, operational, and tactical approaches identified in FM 3-0 resemble Westmoreland's approach in Vietnam, where he used a strategy of attrition warfare. He sought victory by winning a head-to-head war through the collapse and defeat of the enemy by "grinding it down."¹⁵ He saw the battlefield like a game of chess and wanted

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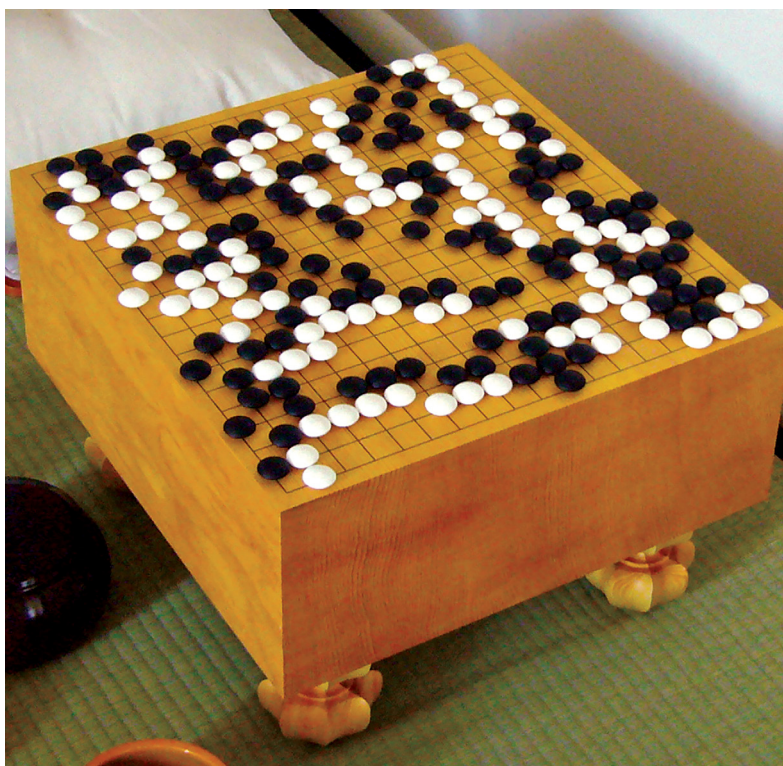
(Figure from Field Manual 3-0, Operations)

Figure 2. Army Strategic Roles and their Relationships to Joint Phases

to destroy as many pieces as possible. Westmoreland was predictable and placed his pieces on the table. In contrast, the North Vietnamese did not.

We find similarities when comparing the recently published FM 3-0 in October 2017 to that of FM 100-5, *Operations of Army Forces in the Field*, published in September 1968 while Westmoreland was the chief of staff of the Army (see table 3, page 23).¹⁶

A quick glance at a tactical approach described in FM 3-0 as compared to a chess board demonstrates the similarities between the strategies of current doctrine to the strategies of chess (see figure 3, page 24).¹⁷ In the opening stage of a chess game, control of the center is of particular importance as it allows for increased mobility of your pieces as well as the ease of access for the remaining parts of the board.



Wei-Chi board showing a game in progress. (Photo courtesy of Goban1 via Wikipedia)

Westmoreland Strategy in Vietnam

"You know you never defeated us on the battlefield," said the American colonel.

The North Vietnamese colonel pondered this remark a moment. "That may be so," he replied, "but it is also irrelevant."
—Conversation in Hanoi, April 1975¹⁸

The biggest flaw in Westmoreland's strategy in Vietnam was that he sought to win battles through a war of attrition; he measured success by counting

the number of enemy dead. Westmoreland defined winning as fulfillment of objectives, yet the objectives were never clear in Vietnam. Just as in chess, winning is the achievement of its objectives by defeating the enemy to such a degree that your opponent can no longer resist; this is essentially checkmate. Finally, to conclude my point, let's examine the definition of winning as described in FM 3-0:

Winning is the achievement of the purpose of an operation and the fulfillment of its

Table 3. Comparing of Terminology between FM 100-5 and FM 3-0

FM 3-0		FM 100-5	
Terminology	Description	Terminology	Description
Combat Power (Chapter 2, Section III, 2-108)	Ultimately, commanders achieve success by applying superior combat power at the decisive place and time.	Combat Power (Chapter 5, Section I, 5-5)	Superior combat power must be concentrated at the critical time and place for a decisive purpose.
Phase (Chapter 1, 1-53)	A phase is a definitive stage or period during a joint operation in which a large portion of the forces and capabilities are involved in a similar or mutually supporting activities for a common purpose that often is achieved by intermediate objectives.	Phasing (Chapter 5, Section III, 5-18 [c][2])	A phase is a distinct period of an operation, at the conclusion of which the nature and characteristics of the action change.
Offensive Operations (Chapter 7, 7-1)	Offensive tasks impose the commander's will on the enemy. Against a capable, adaptive enemy, the offense is the most direct and sure means of seizing, retaining, and exploiting the initiative to gain physical, temporal, and cognitive advantages and achieve definitive results. Executing offensive tasks compels the enemy to react, creating or revealing additional weaknesses that the attacking force can exploit.	Principle of the Offensive (Chapter 5, Section 1, 5-4)	Offensive action is necessary to achieve decisive results and to maintain freedom of action. It permits the commander to exercise initiative and impose his will on the enemy, to set the pace and determine the course of battle, to exploit enemy weaknesses and rapidly changing situations, and to meet unexpected developments.
Multi-Domain Extended Battlefield (Chapter 1, 1-23)	The interrelationship of the air, land, maritime, space, and the information environment (including cyberspace) requires a cross-domain understanding of an operational environment.	Multicapable Forces (Chapter 4, Section III, 4-15)	The organization of Army forces must provide the capability to conduct successful operations in all forms of conflict as well as in a wide range of environments without major change in organization and equipment.
Conflict Continuum and the Range of Military Operations (Chapter 1, 1-1)	Threats to U.S. interests throughout the world are countered by the ability of U.S. forces to respond to a wide variety of challenges along a conflict continuum that spans from peace to war. U.S. forces conduct a range of military operations to respond to these challenges.	Spectrum of War (Chapter 1, Section II, 1-8)	The spectrum of war encompasses the full range of conflict—cold, limited, and general war—and reflects the nature and magnitude of violence involved in each form.

(Information taken from respective field manuals; table by author)

objectives. The Army wins when it successfully performs its roles as part of the joint force during operations. It wins when it effectively shapes an OE for combatant commanders, and when it responds rapidly with enough combat power to prevent war thorough deterrence during crisis. When

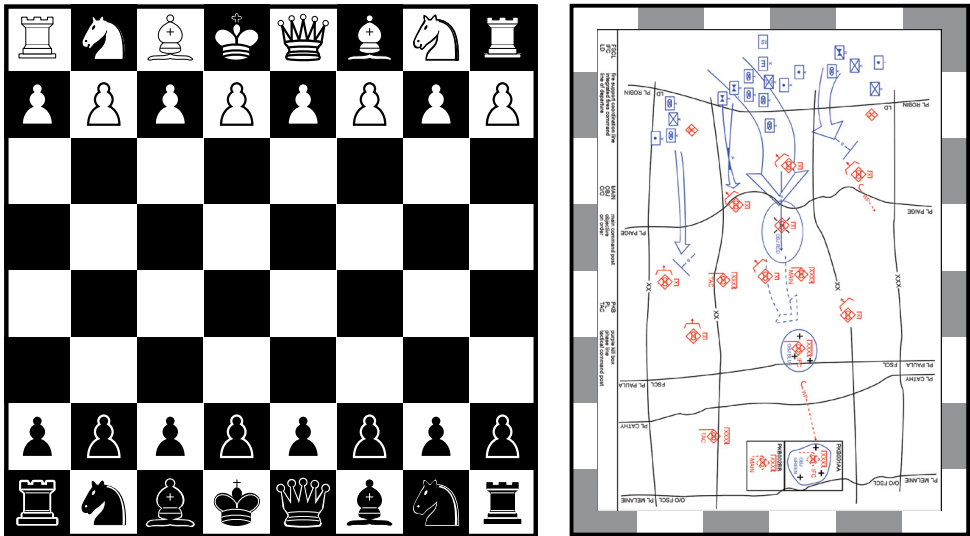
required to fight, the Army's ability to prevail in ground combat at any scale becomes a decisive factor in breaking the enemy's will to continue fighting. The Army wins when an enemy is defeated to such a degree that it can no longer effectively resist, and it agrees to cease hostilities on U.S. terms. To ensure

that the military results of combat are not temporary, the Army follows through with its unique scope and scale of capabilities to consolidate gains and win enduring outcomes favorable to U.S. interests.¹⁹

Wei-chi— Understanding North Korea and China

Wei-chi (otherwise known as Go in Japan and Baduk in Korea) is an abstract strategy board game. Having its origin in China roughly four thousand years ago (making it the oldest board game in the world), it is an abstract way to examine the Chinese way of war and diplomacy.²⁰ David Lai writes in *Learning from the Stones: A Go Approach to Mastering China’s Strategic Concept, Shi*,

The game board is conceived to be the earth. The board is square representing stability. The four corners represent the four seasons, indicating the cyclical change of time. The game pieces, the stones, are round, hence mobile. The spread of stones on the board reflect activities on earth. The shape of the stone engagements on the



(Chessboard graphic courtesy of ILA-boy via Wikimedia Commons; maneuver graphic from Field Manual 3-0, Operations; composite graphic by author)

Figure 3. Chess Board and Maneuver Graphics

Table 4. Characteristics and Descriptions of Wei-Chi

Characteristic	Description
Type of game	Wei-chi is a two-person game where the board takes the form of a square grid containing 361 intersections (nearly six times as many squares of a chess board).
Pieces	Wei-chi is played with black and white pieces called “stones” on an empty board.
Intersections	Stones are played on the intersections, where chess is played within the square.
Objectives	There are two objectives in wei-chi: control of territory and capture of hostile stones; where “territory” is defined as intersections impregably surrounded by the stones of one or the other side.
Key to victory	The game ends when neither side considers itself able to gain further territory or to kill or capture additional enemy stones.
Scoring	The score of a side is the sum of the number of intersections of territory (in chess, territory is not important) that it has encircled, and the number of stones captured or killed by the end of the game.
Winning	The side with the higher scores wins.

(Descriptions from Scott Boorman, *The Protracted Game*; table by author)

Table 5. Key Points to a Successful Wei-Chi Strategy

Point	Description
#1	Utilize the edges of the board as an aid in encircling the maximum amount of territory.
#2	The edges form natural walls, from beyond which no hostile group can penetrate into the border area base.
#3	Play first near the corners, where two edges of the board do half the work for the player, next along the sides.
#4	Key difference from chess. Last of all, play in the center regions where encirclement of territory is most difficult.
#5	Minimize congestion of stones. Calculated dispersion of forces to maximize influence dissemination.

(Descriptions from Scott Boorman, *The Protracted Game*; table by author)

board is like the flow of water, an echo in Sun Tzu's view that the positioning of troops be likened to water.²¹

In *The Protracted Game: A Wei-Chi Interpretation of Maoist Revolutionary Strategy*, Scott Boorman remarks, "The structure of the game [wei-chi] and in particular, its abstractness makes possible a depth of analogy which has no parallel in the relatively superficial comparisons of Western forms of military strategy to chess or poker."²² Boorman compares wei-chi to the writings of Mao Tse-tung, for which Mao wrote in a 1938 essay, "Problems of Strategy in Guerrilla War against Japan,"

Thus there are two forms of encirclement by the enemy forces and two forms of encirclement by our own—rather like a game of wei-chi. Campaigns and battles fought by the two sides resemble the capturing of each other's pieces, and the establishment of strongholds by the enemy and of guerrilla base areas by us resembles moves to dominate spaces on the board. It is in the matter of dominating the spaces that the great strategic role of guerrilla base areas in the rear of the enemy is revealed.²³

Table 6. Complex Nature of Wei-Chi Using Characteristics of the Conflict System Compared to Wei-Chi

Wei-chi concept	Conflict system
Actor	Side (black or white)
Conflict space	Board
Boundary of conflict space	Boundary of board
Unit of conflict space	Intersection
Distance from boundary of conflict space	Distance from the edge of the board
Unit of force	Stone
Zone of control	Territory and influence
Elimination of force units	Capture of stones

(Descriptions from Scott Boorman, *The Protracted Game*; table by author)

Table 7. Common Vietcong Tactics

Tactic	Meaning	Salient feature
Encircle-point-strike-reinforcements (aka fishing tactic)	Encircle a point in order to induce reinforcement and wipe out the reinforcements on the way.	Attack unexpectedly and force your enemy reinforcements into battle under your own control.
Block-reinforcements-strike-point tactic	Concentrate thoroughly a superior number of troops to engulf a smaller number.	Troops blocking the reinforcements make a sustained defense so as to trade space for time.
Surprise-attack-from-a-distance tactic (including raids)	A sudden strike to wipe out your enemy from a concealed location.	Attack on exposed troops from concealment.
Mobile attack	The tactic implies the Communist Chinese mobile-warfare principle: fight when you are sure to win; retreat when you are not sure to win.	Shift the main point of attack. Seek out the opponent's weak point, initiate an unexpected attack and pull out quickly whenever the offense meets a setback.
Gap penetration by counter-advance	Enter enemy territory by making use of gaps between troops.	Implies: You come to my home and I go to yours.
Gap penetration by unexpected attack (Achilles' heel tactic)	Crack troops are selected to penetrate to the enemy's rear from a thinly deployed enemy position by taking advantage of enemy negligence.	Coordinated with a simultaneous frontal attack.
Point assault	Strong force of attack troops is concentrated at the position to be broken through, forming an assault spearhead.	The spearhead is composed of different echelons to breakthrough the center like stabbing with a sharp sword.
Infiltration-and-splitting tactics	Piercing	Advance assault troops into the opponent's position by means of infiltration.
	The splitting method	A wide frontal area with no exposed flank.
Two-line tactic	Harass and contain the enemy forces by a large-scale guerrilla raid in the rear.	Conducted in coordination with a frontal attack.

(From Pen-t'ao Chung, "Vietcong Strategy Tactics"; table by author)

Table 4 (on page 24) describes some of the characteristics of the game of wei-chi.²⁴ A key definition Boorman provides us is the tactic of *encirclement*, which he describes as, "First, encirclement should be roughly outlined in such a manner that the enemy group cannot conduct

an effective breakout to safety. Next, the encirclement should be tightened, and attempts made to prevent creation by the opponent of an invincible position."²⁵ Moreover, Boorman provides a description of successful strategies for wei-chi (see table 5, page 25).²⁶

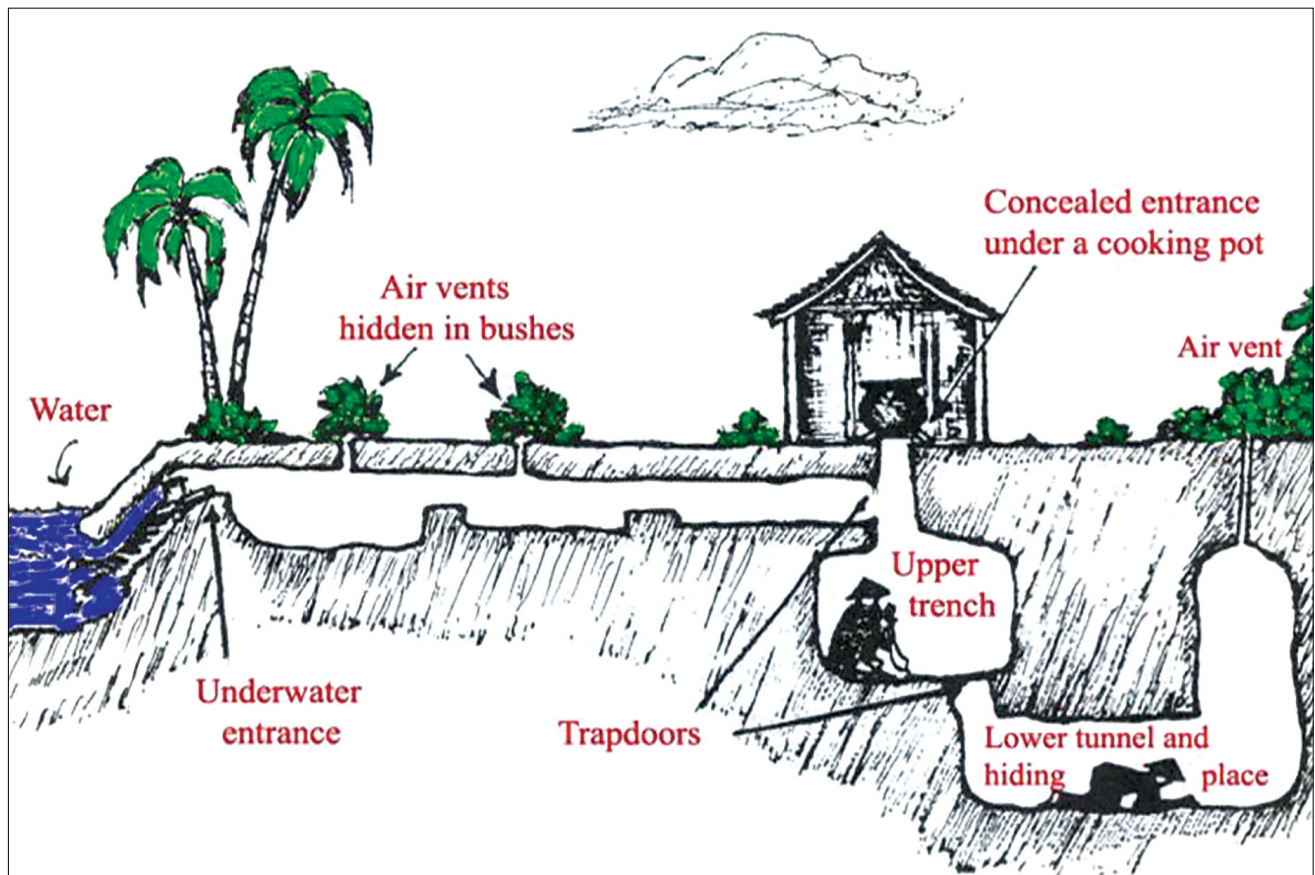


Diagram depicting a Vietcong tunnel network. (Graphic courtesy of the U.S. Army Corps of Engineers)

Finally, let's examine how Boorman connects wei-chi to Chinese military strategy. Table 6 (on page 25) represents the complex nature of wei-chi and similarities to systems theory and systems thinking, where "a system is a group of interacting, interrelated, and interdependent components or subsystems that form a complex and unified whole," and where "systems thinking is a process of understanding how parts of a system work and influence each other as part of a greater whole."²⁷

Vietcong Strategy and Tactics

Ever since Ho Chi Minh got to know Mao Tse-tung, he has treated Mao as his tutor and copied Mao's notes on military thinking.

—Pen-t'ao Chung²⁸

In *Vietcong Strategy and Tactics*, Pen-t'ao Chung writes about the origin of Vietcong military thinking. Chung also provides a list of tactics the Vietcong most often used during the Vietnam War (see table 7, page 26).²⁹

The Vietcong dug tens of thousands of miles of tunnels, which included an extensive network that ran underneath Ho Chi Minh City (formerly Saigon).³⁰ They went underground for protection and concealment from the better-equipped and better-supplied U.S. forces. The tunnels served a wide array of purposes, including as a venue for booby traps and ambushes against pursuing forces. Some were equipped with field hospitals, and some included sleeping areas. Some tunnels even navigated underneath American bases. The Vietcong would use these tunnels to fight and then essentially disappear.

Moreover, Vietnamese communist leader Ho Chi Minh and Gen. Vo Nguyen Giap were both students and avid readers of Sun Tzu's *Art of War*.³¹ Where Westmoreland tried to kill as many enemies as possible, Giap used Sun Tzu tactics such as:

- ◆ using insurgent forces to conduct hit-and-run attacks while avoiding confrontation;
- ◆ forcing the enemy to reveal himself, which also revealed enemy weak spots to attack;

- remaining as close to his enemy as possible, which essentially limited close air support for U.S. troops; and
- through a tactic for which Sun Tzu applies great importance to, using deception through a vast network of spies.

With an emphasis on strategy and stratagem, the Chinese way of war is the polar opposite of the American way of war.

A popular saying in the Chinese diplomatic and defense communities is about the Chinese way of war and diplomacy and its difference to that of the West: Chinese place heavy emphasis on strategy and stratagems whereas the West relies more on overwhelming force and advanced capabilities.³²

Moreover, the China Security Review Commission in 2002 warned of miscalculation and misunderstanding in our thinking and planning regarding the Chinese.³³

Chinese strategic thinking and military planning differ markedly from our own,

underscoring the need to study such differences more carefully. ... The possibilities of miscalculation, miscommunication, and misunderstanding are high, given the substantial differences in each country's thinking and planning, and require far more attention from U.S. policymakers and the Congress.³⁴

Lastly, there is an old Chinese saying, "When you kill 10,000 enemy soldiers, you are likely to lose 3,000 lives as well."³⁵ If we enter into conflict with North Korea and/or China, we will discover (just as we did in the Korean War and the Vietnam War) that we will not be able to sustain a war of attrition with an enemy poised to throw an endless number of soldiers at us. We cannot plan for war by playing chess when our enemy is playing wei-chi. If we identify North Korea and China as our next threats, we must start doing our homework and start learning Chinese strategic thought.³⁶ As Sun Tzu wrote, "If you know the enemy and know yourself, you need not fear the result of a hundred battles."³⁷ ■

Notes

1. David G. Perkins, "Big Picture, Not Details, Key When Eyeing Future," Association of the United States Army (website), 4 May 2016, accessed 14 August 2018, <https://www.ausa.org/articles/big-picture-not-details-key>.

2. David Lai, "Learning from the Stones: A Go Approach to Mastering China's Strategic Concept, *Shi*" (monograph, Army War College, May 2004), 5, accessed 14 August 2018, <http://ssi.armywarcollege.edu/pdffiles/PUB378.pdf>.

3. Robert Dixon, "Clausewitz, Center of Gravity, and the Confusion of a Generation of Planners," *Small Wars Journal*, 20 October 2015, accessed 14 August 2018, <http://smallwarsjournal.com/jrnl/art/clausewitz-center-of-gravity-and-the-confusion-of-a-generation-of-planners>.

4. Corey Dickstein, "Army Rolls Out New Field Manual Focused on Fighting Near-Peer Adversaries," *Stars and Stripes* (website), 10 October 2017, <https://www.stripes.com/news/army-rolls-out-new-field-manual-focused-on-fighting-near-peer-adversaries-1.491916>.

5. Lai, "Learning from the Stones."

6. Ibid.

7. "Westmoreland," *The Washington Post*, 9 February 1986, accessed 14 August 2018, <https://www.washingtonpost.com/archive/lifestyle/magazine/1986/02/09/westmorland/878f-7d1c-7619-4a2e-8806-298e5fb7fc6d>.

8. H. William Dettmer, "Systems Thinking and the Cynefin Framework: A Strategic Approach to Managing Complex Systems," *Goal Systems International*, 2011, accessed 14 August 2018, <http://www.goalsys.com/books/documents/Systems-Thinking-and-the-Cynefin-Framework-Final.3.pdf>.

9. Ibid.

10. Ibid.

11. Lai, "Learning from the Stones."

12. Wikipedia, s.v. "Chess strategy," last modified 1 May 2018, accessed 14 August 2018, https://en.wikipedia.org/wiki/Chess_strategy; "Chess Strategy for Chess Openings and Chess Principles," Chess Central, February 2018, accessed 14 August 2018, <https://www.chesscentral.com/pages/learn-chess-play-better/chess-strategy-for-chess-openings-and-chess-principles.html>.

13. Field Manual (FM) 3-0, *Operations* (Washington, DC: U.S. Government Publishing Office [GPO], October 2017), fig. 1-3.

14. Ibid., fig. 1-4.

15. Wikipedia, s.v. "Attrition warfare," last modified 4 August 2018, accessed 15 August 2018, https://en.wikipedia.org/wiki/Attrition_warfare.

16. FM 100-5, *Operations of Army Forces in the Field* (Washington, DC: U.S. Government Printing Office, September 1968), accessed 15 August 2018, <http://cgsc.contentdm.oclc.org/cdm/ref/collection/p4013coll9/id/38>.

17. FM 3-0, *Operations*, fig. 7-4.

18. Conversation between Col. Harry G. Summers Jr., chief, Negotiations Division, U.S. delegation, and Col. Tu, chief, North Vietnamese delegation on 25 April 1975, cited in Harry Summers Jr., introduction to *On Strategy: A Critical Analysis of the Vietnam War* (New York: Random House, 1982), 1.

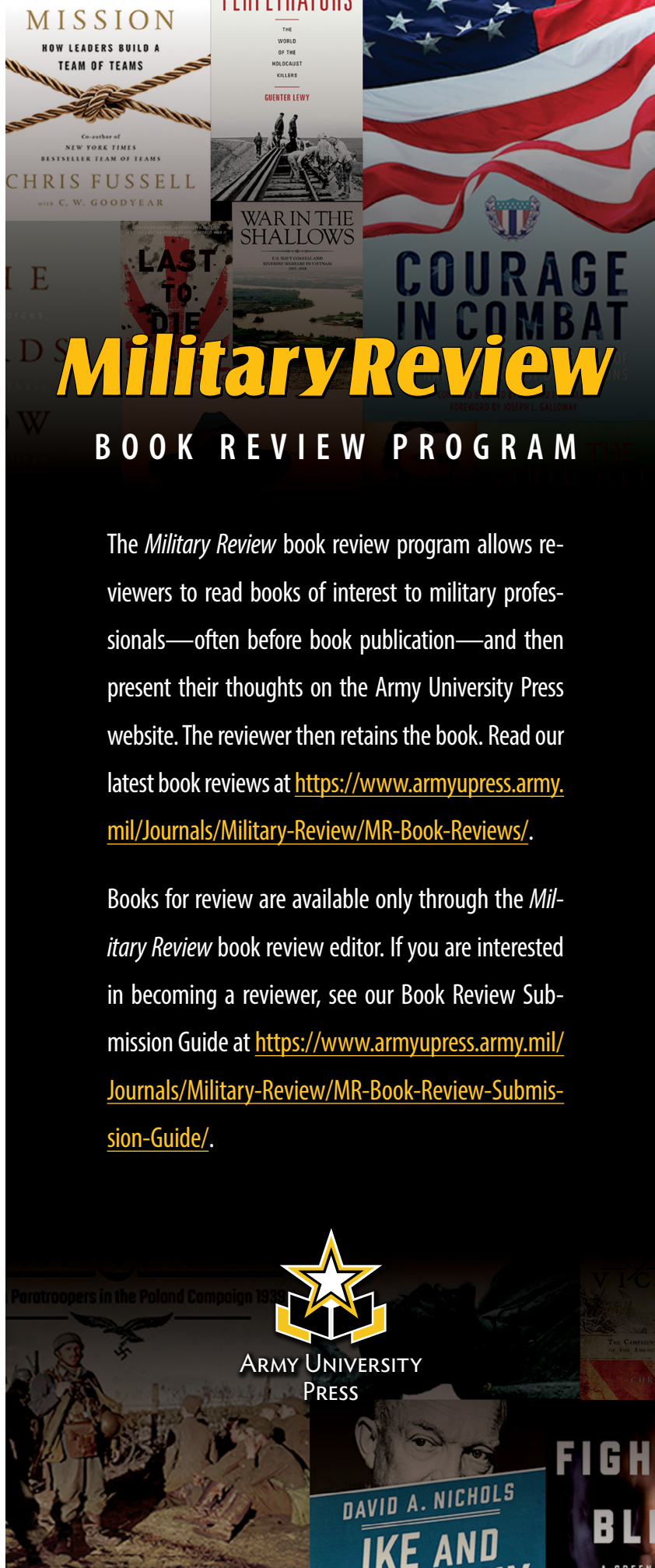
19. FM 3-0, *Operations*, para. 1-67.

20. Lai, "Learning from the Stones."

21. Ibid.

22. Scott Boorman, *The Protracted Game: A Wei-Chi Interpretation of Maoist Revolutionary Strategy* (Oxford, UK: Oxford University Press, 1969), 6.

23. Mao Tse-tung, "Problems of Strategy in Guerrilla War against Japan," *Peking Review* 35 (May 1938), accessed 15 August 2018, <http://www.massline.org/PekingReview/PR1965/PR1965-35-Mao-ProblemsOfStrategy.pdf>.
24. Boorman, *The Protracted Game*.
25. *Ibid.*, 28.
26. *Ibid.*
27. Army Techniques Publication 5-0.1, *Army Design Methodology* (Washington, DC: U.S. GPO, 2015), para. 1-36–1-37; table 6 components from Boorman, *The Protracted Game*.
28. Pen-t'ao Chung, *Vietcong Strategy and Tactics* (Wright-Patterson Air Force Base, OH: Foreign Technology Division, 22 July 1968).
29. Chung, *Vietcong Strategy and Tactics*.
30. History.com Staff, "Cu Chi Tunnels," History.com, 2011, accessed 15 August 2018, <http://www.history.com/topics/vietnam-war/cu-chi-tunnels>.
31. Sun Tzu, *The Art of War*, trans. Lionel Giles (London: Luzac, 1910).
32. Lai, "Learning from the Stones."
33. *Ibid.*
34. U.S.-China Security Review Commission, *Report to Congress of the U.S.-China Security Review Commission: The National Security Implications of the Economic Relationship between the United States and China*, July 2002, 15, accessed 15 August 2018, https://www.uscc.gov/Annual_Reports/2002-annual-report-congress.
35. Lai, "Learning from the Stones," 3.
36. Lai, "Learning from the Stones."
37. Sun Tzu, *The Art of War*, 24–25.




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