

WARP IV

PATTERNS OF CONFLICT

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John Byrd

BACKGROUND

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Key Chart that ~~was~~
started Breakthrough in new concepts

DEEPER GENERALIZATION - "WARP II"

- NEED FIGHTER THAT CAN BOTH LOSE ENERGY AND GAIN ENERGY MORE QUICKLY WHILE OUTTURNING AN ADVERSARY

- SUGGESTS A FIGHTER WITH A HIGHER $G \left[\frac{CL_{MAX}}{W/S} \right]$ AND HIGHER

TURN RATES/LOWER TURN RADII FOR POSITIVE ENERGY RATES - BUT NOT NECESSARILY HIGHER TURN RATES/LOWER TURN RADII FOR NEGATIVE ENERGY RATES.

- IN OTHER WORDS, SUGGESTS A FIGHTER THAT CAN BE USED TO INITIATE AND CONTROL ENGAGEMENT OPPORTUNITIES - YET HAS A FAST TRANSIENT ("NATURAL HOOK") THAT CAN BE USED TO EITHER FORCE AN OVERSHOOT BY AN ATTACKER OR TO STAY INSIDE A HARD TURNING DEFENDER.

IDEA EXPANSION

- 0 IDEA OF FAST TRANSIENTS SUGGESTS THAT - IN ORDER TO WIN OR GAIN
SUPERIORITY - WE SHOULD OPERATE AT A FASTER TEMPO THAN OUR ADVERSARIES
OR INSIDE OUR ADVERSARIES TIME SCALES.
- 0 WHY? SUCH ACTIVITY WILL MAKE US APPEAR AMBIGUOUS (NON-PREDICTABLE)
THEREBY GENERATE CONFUSION AND DISORDER AMONG OUR ADVERSARIES - IN
ACCORDANCE WITH GÖDEL'S PROOF, THE HEISENBERG PRINCIPLE AND THE SECOND
LAW OF THERMODYNAMICS.

EXAMPLES

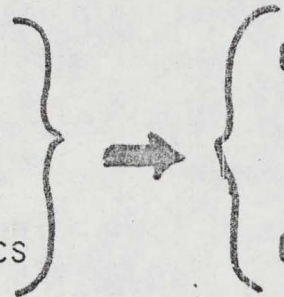
- BLITZKRIEG VS MAGINOT LINE MENTALITY (1940)
- F-86 vs MiG-15 (1951 - 53)
- ISRAELI RAID ((1976)

ILLUMINATIONNOTIONSSYNTHESIS

- GÖDEL'S PROOF

- HEISENBERG PRINCIPLE

- SECOND LAW OF THERMODYNAMICS



WE CANNOT DETERMINE THE CHARACTER OR
NATURE OF A SYSTEM WITHIN ITSELF.

EFFORTS TO DO SO WILL ONLY GENERATE

CONFUSION AND DISORDER



FAST TRANSIENTS (FASTER TEMPO) TOGETHER WITH SYNTHESIS ASSOCIATED WITH GODEL, HEISENBERG, AND THE SECOND LAW SUGGEST A NEW CONCEPTION FOR AIR-TO-AIR COMBAT AND FOR WAGING WAR.

NEW CONCEPTION

ACTION: EXPLOIT OPERATIONAL AND TECHNICAL FEATURES TO:

- GENERATE A RAPIDLY CHANGING ENVIRONMENT (QUICK/CLEAR OBSERVATIONS, FAST TEMPO, FAST TRANSIENTS, QUICK KILL).
- INHIBIT AN ADVERSARIES CAPACITY TO ADAPT TO SUCH AN ENVIRONMENT (SUPPRESS OR DISTORT OBSERVATIONS).

GOAL: UNSTRUCTURE ADVERSARIES SYSTEM INTO A "HODGE PODGE" OF CONFUSION AND DISORDER BY CAUSING HIM TO OVER AND UNDER REACT BECAUSE OF ACTIVITY THAT APPEARS UNCERTAIN, AMBIGUOUS OR CHAOTIC.

A-To-A & A-To-G

RECIPE FOR GENERATING CONFUSION AND DISORDER

OBSERVATIONS

- QUICK/CLEAR SCANNING SENSORS
- SUPPRESSED/DISTORTED SIGNATURES

ACTIVITY

- QUICK AND PRECISE PERFORMANCE
 - SUPERCUISE
 - RAPID ENERGY GAIN AND RAPID ENERGY LOSS COUPLED WITH HI TURN RATES AND LO TURN RADII
 - HI PITCH RATES/HI ROLL RATES/HI YAW RATES COUPLED WITH EASE OF CONTROL
- KILL MECHANISM
 - ~~QUICK SHOOT WEAPONS AND FIRE CONTROL SYSTEMS~~
 - OFF BORESIGHT

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GOAL

- Improve our capacity for independent action

This may mean we must

- Deprive our adversary of his capacity for independent action.

QUESTIONS

- How do we realize such a goal by waging war?
- Does History give any insight or suggest any useful pattern?

HISTORICAL PATTERN

Early Commanders

- Alexander
- Hannibal
- Belisarius
- Jenghis Kahn
- Tamerlane

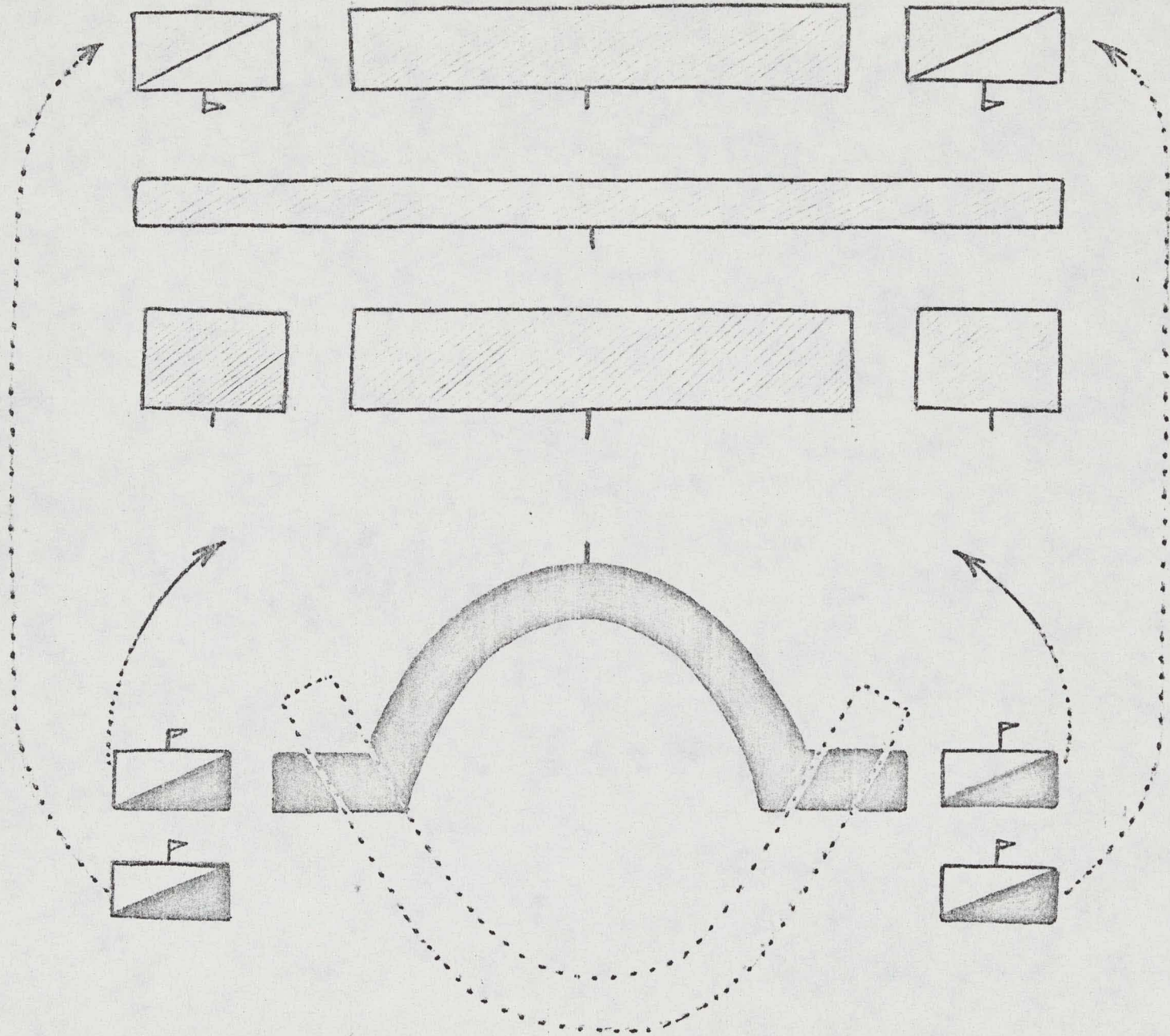
Theme

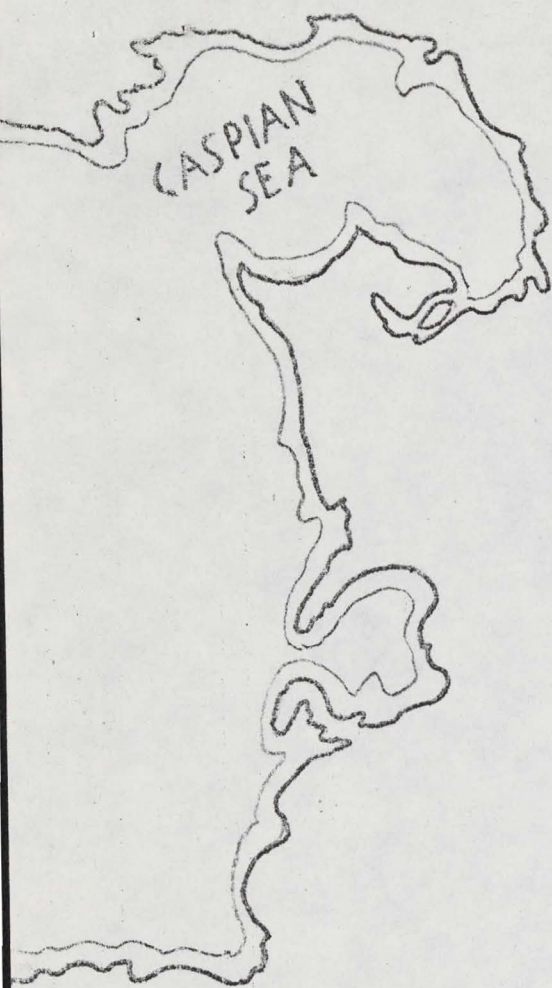
- Surprise
- Deception
- Mobility
- Fire-Power
- Shock

Action

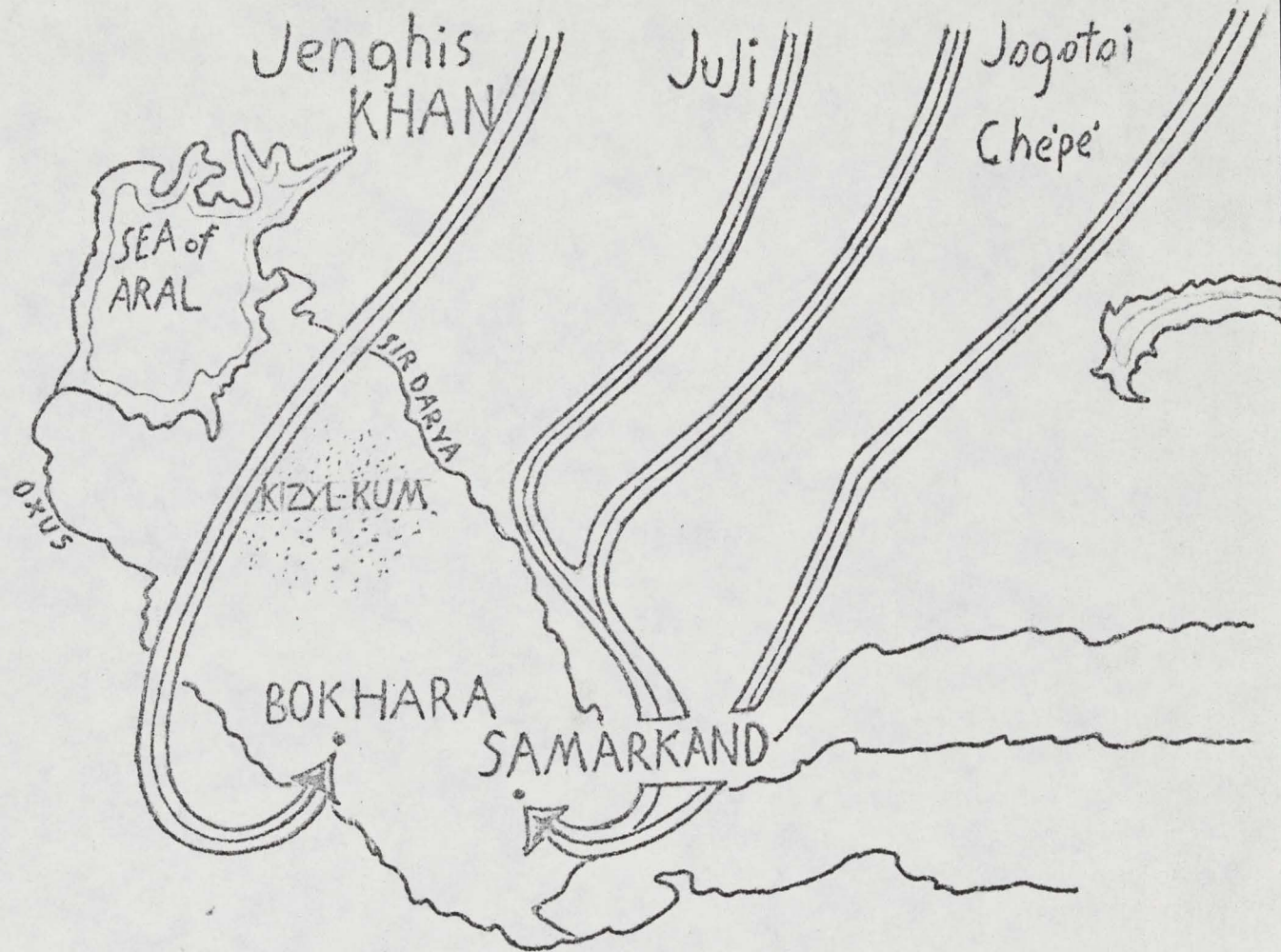
- Defensive/Offensive
"lure and trap"
- Offensive/Defensive

BATTLE OF CANNAE





MONGOL INVASION



500 MILES

HERAT

HISTORICAL PATTERN

18th Century Theoreticians

- Saxe
- Bourcet
- Guibert
- Du Teil

Theme

- Mobility/Fluidity of Force
- Dispersion and Concentration
- Plan with Several Branches
- Operate on a Line to Threaten Alternative Objectives
- Concentrate Direct Artillery Fire on Key points to be Forced.

Action

- Napoleon was deeply influenced by the ideas of the above men. In his early career he applied these ideas as the basis for generating surprise and deception to defeat superior forces. In his later career he relied increasingly on pure offensive power in the form of infantry columns, massed direct artillery fire, and heavy cavalry going against regions of strong resistance.
- American Colonists, Spanish and Russian Guerrillas, in unexpected ways, used Mobility/Fluidity of Force as basis for Dispersion and Concentration to harass, confuse, and finally defeat the British and French under Napoleon. However it is not known whether the Americans, Spanish or Russians were familiar with the above theoreticians.

IMPRESSION

The ideas of Saxe, Bourcet, and Guibert seem to be at home with either Regular or Guerrilla Warfare.

HISTORICAL PATTERN

19th Century Technology

- Railroad/Telegraph
- Artillery
- Machine Gun
- Repeating Rifle
- Barbed Wire
- Trenches

Early Trends

- Emphasized Massed Firepower and Logistics to Support it
- Increased Emphasis on a Holding Defense and Flanking Maneuvers on a broad front to gain a decision.
- Use of Frontal assaults by infantry supported by artillery barrages against regions of strong resistance.

Results

- Huge firepower and other vast needs supported through a narrow logistics network suppressed surprise, deception and mobility of any operation.

KEY POINTS

- The location of the railroads coupled with the gigantic masses of supplies of all kinds "telegraphed" any punch hence minimized the possibility of surprise, deception and mobility to gain a decisive edge.

- In this sense, technology was being used as a crude club that generated frightful and debilitating casualties on all sides during the:
 - American Civil War (1861-65)
 - Austro-Prussian War (1866)
 - Franco-Prussian War (1870)
 - Boer War (1899-1902)
 - Russo-Japanese War (1904-05)
 - World War I (1914-18)

WORLD WAR I

- PLANS AND EXECUTION
- STAGNATION
- FINALE

WORLD WAR I

Action

- Offensives conducted on Wide Fronts
- Evenness of advance maintained to protect flanks and provide artillery support as advance makes headway
- Reserves thrown-in whenever attack held up - against points of strong resistance

Reaction

- Defense organized itself into depth of successive belts of terrain.
- Massed artillery and machine gunfire designed to arrest and pin down attacker
- Counter-attack to win back ground which was lost

Result

- Stagnation and enormous attrition since advances made generally as expected and along paths of hardened resistance because of dependence upon railroads and choice of tactics of trying to reduce strong points by firepower.

WORLD WAR I

A WAY OUT

Idea

- Infiltration Tactics

- Guerrilla Tactics

Authors

- Capt Laffargue
- Gen *Hunter?*
- Gen Ludendorf

- T.E. Lawrence

WORLD WAR I

Infiltration Tactics!

Action

- Brief but intense artillery bombardment
- Assault by constantly reinforced teams of specialists (stormtroopers) equipped with light machine guns, light mortars and grenades, with orders to avoid opposition and pour (infiltrate) into any gaps they could find or create.
- Follow-up teams of infantry, machine gunners, and light artillery would mop-up isolated strongpoints of resistance.
- Reserves would be fed in from the rear to enlarge gaps and breaches along paths of least resistance. In this way Reserves would be employed to support successful assaults instead of trying to redeem failure against regions of heavy resistance.

WORLD WAR I

Infiltration Tactics

• Result

- Immediate success coupled with ultimate failure

• Why?

- Ludendorf violated own conception by his tendency to veer toward sectors of hardened resistance hence he tended to dissipate reserves (against regions of resistance) in an effort to keep assault moving.

- In other words, he seduced himself into supporting failure not success

- Inadequate logistics and communications to support and guide offensive thrusts that have both a rapid and fluid nature.

WORLD WAR I

Guerrilla Warfare

Action

- Gain support of population. Must "arrange the minds" of friend, foe and neutral alike. Must "get inside their minds".
- Must "be an idea or thing invulnerable, without front or back, drifting about like a gas" (fluidity of action). Must be an attack-in-depth.
- Tactics "should be tip-and-run, not pushes but strokes" with "use of the smallest force in the quickest time at the farthest place".
- Should be a war of detachment using mobility/fluidity of action and environmental background (vast unknown desert) as basis for "never affording a target" and "never being on the defensive except by ~~trial and error~~ *accident and in error.*
accident

IMPRESSION

- Infiltration tactics ala Ludendorff seem to be similar in nature to Irregular or Guerrilla tactics ala Lawrence.
- Why? Both use fluidity-of-action to concentrate strength against weakness -- but at different levels of concentration.

BETWEEN WORLD WAR I AND II

- Lightning War (Blitzkrieg)

- Infiltration Tactics of 1918 were mated with:

- Tank
- Self Propelled Artillery
- Tactical Aircraft
- Motor Transport
- Better Communications

by

- JFC Fuller
- Heinz Guderian

- Result:

- Blitzkrieg to generate a breakthrough by piercing a ~~line~~ ^{region} about 2000 yds wide at two or three points on a narrow front with armor, motorized infantry, and follow-up infantry divisions supported by tactical aircraft.

- Guerrilla War

- Guerrilla Strategy and Tactics were codified by Mao Tse-Tung.

- Result:

- Modern Guerrilla Warfare has become an overall political, economic, psychological and military framework for "total war".

WORLD WAR II

Blitzkrieg

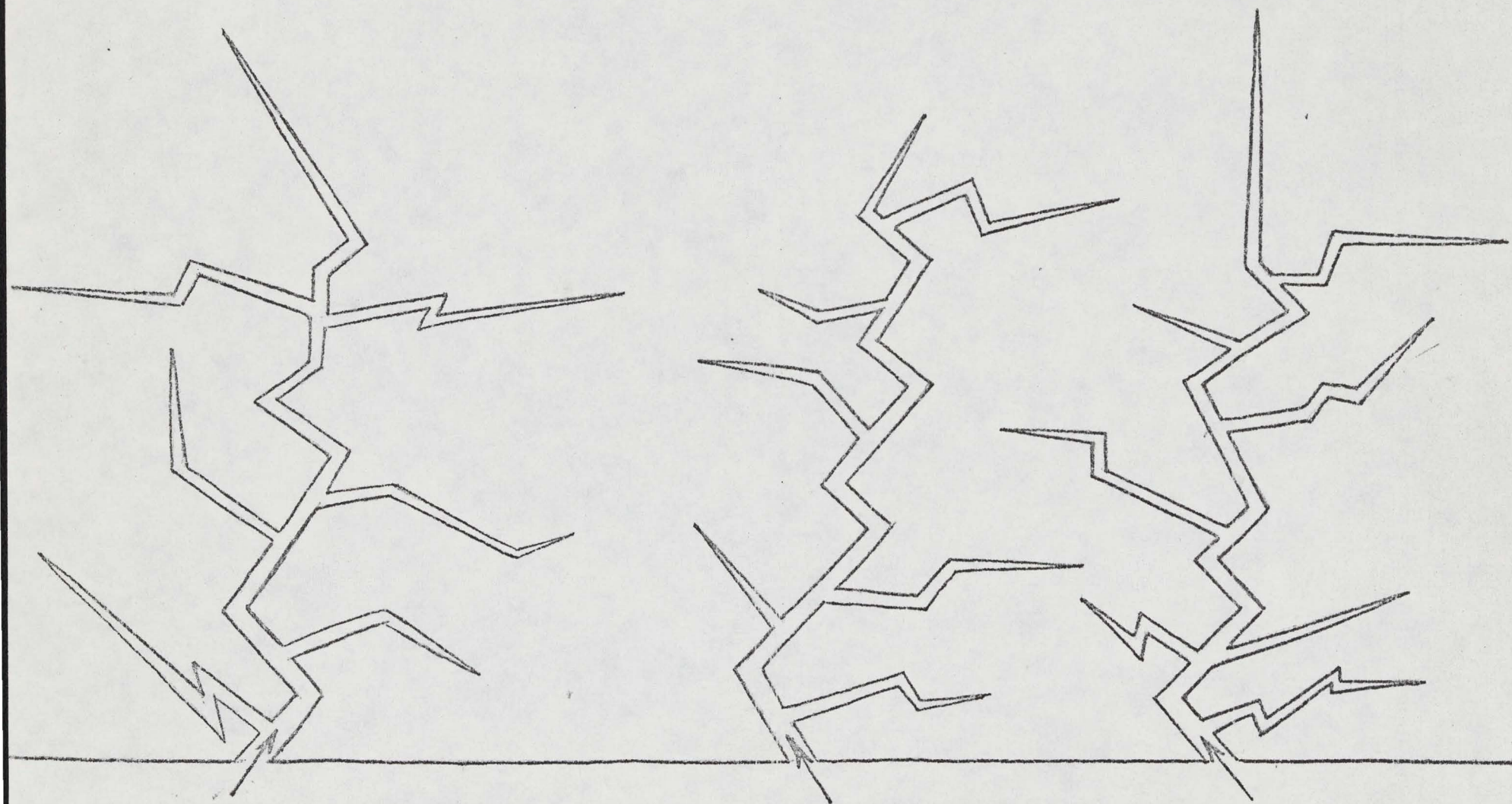
Action

- Brief but intense (or possibly no preliminary) bombardment by artillery and/or air
- Assault by constantly reinforced armored combat teams of tanks, self-propelled artillery and infantry to open breaches and gaps from regions of least expectation and along paths of least resistance.
- Follow-up teams of motorized infantry working in conjunction with armor pour-in to deepen the breaches and gaps. When breakthrough occurs follow-on mobile/armored teams blow-through penetration into adversary's rear.
- Regular infantry further back supported by artillery and armor pour-in to wipe-out isolated pockets of resistance, enlarge the breaches and gaps along paths of least resistance and secure the captured terrain against possible counter-attack.

Idea

- Conquer an entire region in the quickest possible time by using fast tempo/fluidity-of-action as basis for quick concentration and shifting of attacking and reserve forces against an adversary's support, communications and command structure in order to confuse, disorder, and finally shatter his will or capacity to resist.

IMPRESSION OF THE BLITZKRIEG



WORLD WAR II

Blitzkrieg

Key to Success

- Fast tempo and fluidity of action to continuously permit concentration of strength against weakness thereby generate doubt and uncertainty followed by confusion and disorder which magnify into panic and chaos.
- Command at local level to exploit opportunities generated by rapid action within a broad loosely woven scheme laid down from above.
- Superior network of communications to enable higher command levels to coordinate, guide, and shift center or weight of overall action.
- Essential and only essential logistics to support and maintain both a rapid movement and expanding effort.

Guerrilla Campaign

Action

- Solicit support of population, set up organization, sanctuary and communications network without arousing adversary's intelligence and security apparatus.
- Employ tiny bands for fluid hit-and-run raids against lines of communications (to gain arms and supplies) but retreat and melt into environment when faced by superior police and armed forces.
- Harass ever larger adversary concentrations (in front, flank, and rear) with ever larger bands by ambush against supply columns and patrols and by infiltration or sneak attack against isolated strongpoints. Disperse to avoid open combat or a major assault by superior forces.
- Attack and fight major force units using methods of conventional warfare.

Idea

- Defeat adversary by continuously using fast tempo/fluidity of action as basis for dispersion, concentration and shifting of forces to harass, confuse and ultimately destroy his will or capacity to resist.

GUERRILLA CAMPAIGN

KEY TO SUCCESS

- Support of population (both psychological and physical) that willingly furnishes recruits, intelligence, transportation, shelter, refuge, food, money and medical aid.
- Fast tempo/fluidity-of-action and environmental background as basis for "never affording a target" and "never being on the defensive except by trial and error."
- Sanctuary (or base) as safe area to which Guerrillas "can retire, voluntarily or involuntarily, for rest, recuperation, repair of arms, clothing, and equipment, and where recruits can be indoctrinated, trained and equipped."

BLITZ RESULTS

Successful

•	Poland	1939
•	France	1940
•	Balkans	1941
•	Russia	1941
•	North Africa	1941-42
•	Russia	Summer 1942
•	Russia	March 1943
•	Normandy	1944
•	Manchuria	1945
•	Middle East	1967
•	Middle East	1973

Unsuccessful

•	Russia	Winter 1941-42
•	Russia	Fall, Winter 1942-43
•	North Africa	1942
•	Russia	Summer 1943
•	Ardenes	Winter 1944-45

GUERRILLA RESULTS

Successful

•	American Colonies	1775-81
•	Spain	1808-14
•	Russia	1812
•	Arabia	1916-18
•	China	1927-49
•	Russia	1941-45
•	Yugoslavia	1941-45
•	Indochina	1945-54
•	Algeria	1954-62
•	Cuba	1956-59
•	South Vietnam	1958-75

Unsuccessful

•	Greece	1944-49
•	Phillipines	1946-54
•	Malaya	1948-60

? KEY QUESTION ?

- Why have Blitz and Guerrilla Warfare been so extraordinarily successful?

FUNDAMENTAL MESSAGE

Action

- Blitz and Guerrillas concentrate or disperse more quickly from or to lower levels of distinction (or organization) without losing cohesion of overall effort.
- Put another way, Blitz and Guerrillas "get inside adversary's" Mind-Space-Time Continuum.

Result

- Such activity by Blitz and Guerrillas make them appear ambiguous (unpredictable) and awesome which magnifies into confusion, disorder and panic among their adversaries -- in accordance with Gödel's Proof, the Heisenberg Principle and the Second Law of Thermodynamics.

Pattern for Successful Operations

- Goal
 - Deprive an adversary of his capacity for independent action.
- Plan
 - Select initiative (or response) that is least expected.
 - Move along path of least resistance.
 - Pursue direction which threatens alternative objectives.
- Action
 - Exploit fast tempo and fluidity of action as basis for either quick concentration or fluid dispersion of effort.
- Support
 - superior communications
 - essential logistics

} to sustain appropriate level of operations within available resources.
- Command
 - At local level to exploit opportunities as they present themselves.

Illumination

Attributes

- Fast Tempo
- Fluidity of Action



Permits

Tactics

- Concentration of Firepower and Forces
- Dispersion



Illumination

Attributes

- Fast Tempo
- Fluidity of Action

permits

Tactics

- Concentration
- Dispersion

Strategy

- Select initiative (or response) that is least expected
- Move along path of least resistance
- Pursue direction that threatens alternative objectives

generates

Outcome

- Uncertainty
- Confusion
- Disorder
- Chaos