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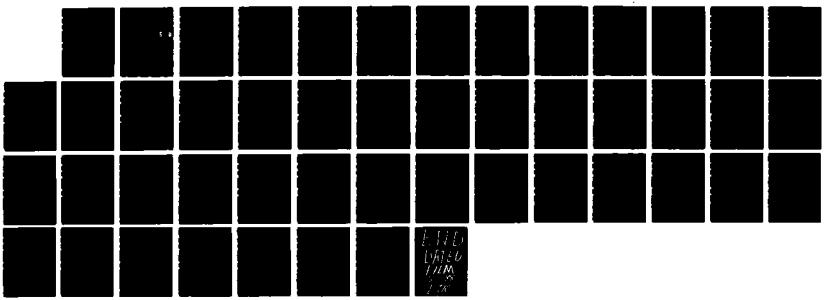

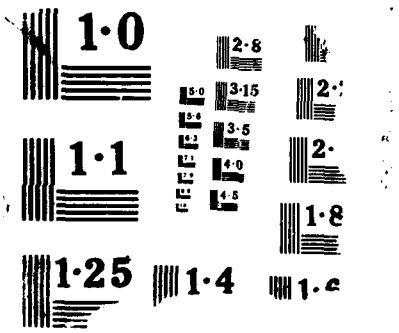
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Hans Delbruck and Clausewitz's Culminating Points

by

Mark J. Redlinger, MAJ, USA
Field Artillery

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Fort Leavenworth, Kansas

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This monograph searches for an answer to the question: "What is the relationship between strategies and operational culminating points?" It begins by examining the theoretical position of Hans Delbruck and his dual strategies of annihilation and exhaustion. It then turns to Clausewitz and investigates the concept of culminating points. Finally, it develops a model of strategic combat power which is used to aid the reader in understanding the theoretical link between operational culminating points and strategies of exhaustion and annihilation. This concludes the first part of the monograph.

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ABSTRACT

HANS DELBRUCK AND CLAUSEWITZ'S CULMINATING POINTS by MAJ Mark J. Redlinger, USA, 40 pages.

This monograph searches for an answer to the question: "What is the relationship between strategies and operational culminating points?" It begins by examining the theoretical position of Hans Delbruck and his dual strategies of annihilation and exhaustion. It then turns to Clausewitz and investigates the concept of culminating points. Finally, it develops a model of strategic combat power which is used to aid the reader in understanding the theoretical link between operational culminating points and the strategies of exhaustion and annihilation. This concludes the first part of the monograph.

The second section of the monograph is a case study of the Yom Kippur War of 1973. This war is used to test the validity of our analysis concerning strategies and culminating points. Our theory not only is valid, but also demonstrates that a strategic planner must consider operational culminating points as an integral element to the success of any campaign. Not to understand the relationship of culminating points to the success of strategies will only end in disaster.

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I. Introduction

The United States is facing serious financial difficulties in its ability to maintain a budget which can support both domestic and international programs. These financial difficulties demand a long-term strategy for the United States which attributes realistic priorities for our international goals. Implicit in this strategy must be a recognition that the defense budget will be austere.[1] This budgetary austerity will have a decided impact upon our ability to resource the operational plans developed to achieve our strategic objectives. It is instructive to examine how operational resource requirements impact upon strategies. This investigation requires us to examine the question from two levels. First, we will examine the theoretical connection between operational culminating points and strategies. Second, we will apply a case study to our theoretical conclusions as a means to test their validity. In this manner, we expect to answer the question: "What is the relationship between strategies and operational culminating points?" The answer to this question has major significance to the United States.

Since World War II, the United States has fought wars when it was ill-prepared. The Korean War saw the deployment of an army ill-equipped and ill-trained. A root cause for this situation was the budget constraints placed upon the military immediately after World War II. The Korean War was not the last

military conflict in which the United States' participation began on a poor footing. Other examples could include the Dominican Republic, the Vietnam War, and Lebanon. In nearly all of these cases, the United States possessed the time to correct any early shortcomings. This will not be the case in the future. Time will be short and the action rapid. To be successful against a formidable foe, the United States must develop a sound strategy which can be implemented quickly and effectively. Any sound strategy will call for a clear recognition that ways, means, and ends must match. It is fortunate for us that this is not new to military campaigning and that we don't have to break new ground in the theoretical aspects of this problem.

Carl von Clausewitz has already pondered the nature of culminating points in his book *Vom Krieg* [On War]. Hans Delbruck, a student of Clausewitz, examined strategies in his work *Geschichte der Kriegskunst im Rahmen der politischen Geschichte* [History of the Art of War within the Framework of Political History]. It seems appropriate, therefore, that we select these two giants as the theoretical starting point for our research. As in most examinations, we will follow a method in developing our understanding of the theoretical relationship between Clausewitz's operational culminating points and Delbruck's strategies.

We will begin our inquiry by defining the main terms. These are the dual strategies of Delbruck--commonly called the strategy of annihilation and the strategy of attrition--and the

culminating point. Only by defining these terms can we explore their relationships. After probing their relationships, we will develop a simple strategic model. This model will conceptualize the linkage between operational culminating points and the strategies of annihilation and attrition. Of course, a theory's value lies in the manner it clarifies reality. Using our model as the vehicle, we will demonstrate the validity of our theorizing in understanding how operational culminating points impacted on the outcome of the Yom Kippur War of 1973. Our paper will finish, then, with important observations concerning strategies and culminating points.

II. Definition of Terms

We begin this section with Hans Delbruck and his concepts of strategies of annihilation (*Niederwerfungsstrategie*) and exhaustion (*Ermattungsstrategie*). We next will focus upon Carl von Clausewitz and his concepts of culminating points. Finally, we will develop a model for understanding the relationships between culminating points and strategies of annihilation and attrition.

A. Hans Delbruck's Dual Strategies

Hans Delbruck was one of the earliest serious scholars of Clausewitz. Being a political historian, Delbruck was intrigued with Clausewitz's connection between the military ways and the political ends. From these writings Delbruck began to consider the relationship between the strategic and political goals of a state. "To come back once more to that fundamental sentence of Clausewitz, no strategical idea can be considered completely without considering the political goal."[2]

In 1900 Hans Delbruck published his first volume to the *Geschichte der Kriegskunst im Rahmen der politischen Geschichte*. Volume IV, the last volume, was finished the year the First World War ended and published in 1920. The research for this volume had been completed prior to 1914.[3] Contained in this last volume was a chapter exclusively treating the subject of strategy. It is worth our time to examine this chapter. First, however, we need some German-English translation.

Walter Renfroe, in translating the Delbruck's four volume work, translated *Ermattungsstrategie* as "strategy of attrition," and *Niederwerfungsstrategie* as "strategy of annihilation."[4] We believe that the translation of *Ermattungsstrategie* as "strategy of attrition" confuses Delbruck's intent. *Ermattungsstrategie* derives its meaning from the German transitive verb *ermatten* which means *werden* [to become] *matt*.[5] *Matt* is an adjective which means *schwach* [weak], *kraftlos* [powerless], *lustlos* [without desire or pleasure], *mude* [tired].[6] The substantive form of *ermatten* is *Ermattung* which means "*das Ermatten; das Ermattetsein, Mattheit, Mattigkeit.*"[7] The *Ermattungsstrategie*, therefore, is not properly defined by the term "attrition strategy".

Ermattungsstrategie, in the purest form, is a maneuver strategy.[8] The strategist seeks a manner in which to weaken the opposing commander's will or forces. The term "strategy of becoming exhausted" or "strategy of exhaustion," therefore, is a more applicable term for *Ermattungsstrategie*. In fact, both strategies have some element of attrition.

Both strategies seek to alter the relative strength of the opposing armies such as to make their opponent weaker than themselves. It is a tautology to call *Ermattungsstrategie* a "strategy of attrition" and *Niederwerfungsstrategie* a "strategy of annihilation" when annihilation also includes attrition of the

opposing forces. The only distinction between the two terms would be one of distance and time and not of quality and substance.[9] Hans Delbruck had something different in mind with *Ermattungsstrategie*:

> One may not so much place his hopes on completely defeating the enemy as on wearing him out and exhausting him by blows and destruction of all kinds to the extent that in the end he prefers to accept the conditions of the victor, which in this case must always show a certain moderation.[10]

Delbruck recognized, though, that there was no absolutely pure form of maneuver strategy in war. All warfare implied battle, and all battles implied attrition. The battle was a subordinate instrument, though, in a strategy of exhaustion. In a strategy of annihilation, however, battle was the predominant element. The decisive battle becomes the focal point.[11] This is evident when we examine the word *Niederwerfung*.

Niederwerfung is the substantive form of *Niederwerfen*. *Niederwerfen* is a transitive verb meaning "*zu Boden werfen...unterdrucken, niederschlagen (Aufstand)*."[12] The context is clear. *Niederwerfen* is to throw someone to the floor, to place someone on their knees, or to suppress or put down a revolt. There is violence in the word itself. It is an absolute. The substantive meaning of *Niederwerfung* is suppression or overthrow. The *Niederwerfungsstrategie* is a strategy of violent overthrow or prostration. Battle is the sole

instrument. The destruction of the opposing army the way. The description of this strategy as a strategy of annihilation is slightly misleading.

The German word for military annihilation is *aufreiben* which means to wipe out. In fact, the example used by the dictionary is "...die Truppen wurden voellig aufgerieben."[13] This sense is different than the meaning of *Niederwerfen*. The strategy of *Niederwerfen* is not a strategy of annihilation, but a strategy of prostration and suppression. The strategy uses battle to bring the opposing army and thereby the opposing state to its knees:

> The first natural principle of all strategy is to assemble one's forces, seek out the main force of the enemy, defeat it, and follow up the victory until the defeated side subjects itself to the will of the victor and accepts his conditions, which means in the most extreme case up to occupation of the entire enemy country.[14]

The phrase "strategy of annihilation" is appropriate for the German word *Niederwerfungsstrategie* only if we understand annihilation to mean the complete subjugation of the opposing country. The first step to this subjugation is the defeat of the field army. This use of battle is important to the strategy of annihilation and distinguishes it from the strategy of exhaustion:

> Consequently, battle plays a role both in the strategy of annihilation and that of attrition [Renfroe's translation of *Ermattungsstrategie*], but the difference is that in the former strategy it is the one means that outweighs all others and draws all others into itself, while in the strategy of attrition it is to be regarded as one means that can be chosen from among several.[15]

The political process determines the ends of both strategies, but the ways are distinctly different.

In order to conduct a strategy of annihilation one must have sufficient superiority so that the army can win not only a great victory, but can totally occupy and enslave the opposing country or allies. It is this total destruction, the throwing of the opponent to the floor, which achieves the subjugation of the opposing force's military, political, and social will. *Niederwerfungsstrategie* demands battle because it seeks to destroy the opponent's forces and will absolutely. Most armies have sufficient military force to win the first great victory, but not enough to besiege the enemy's country.[16] In this case the co-equal strategy of exhaustion is appropriate.

The ways to the ends are far more varied with *Ermattungsstrategie*. "...[W]hen the will and the power did not allow a decision, then strategy had to be limited accordingly. A commander who lacked the will or the power could not wage a war of annihilation."[17] The battle is accepted only when the loss of the army is not at risk. A strategy of exhaustion is not, therefore, battle warfare.

A discussion of Clausewitz is not far removed from our previous discussion of Delbruck. Hans Delbruck's development of his dual strategies is in many ways an extension of Clausewitz's own writings. According to Delbruck, Clausewitz accepted the notion that a strategy of exhaustion is a co-equal to the strategy of annihilation.[18]

B. Clausewitz's Culminating Points

Clausewitz discusses the concept of culminating point three times in his book *Vom Krieg*--the first time in Chapter Eight of Book Six, the second time in Chapter Five of Book Seven, and finally in Chapter Twenty-two of Book Seven. Each time he discusses culminating point from a different perspective.

In the first instance, Clausewitz discusses the types of resistance found in warfare. He identifies four cases of defensive actions. First, the defender immediately attacks the enemy forces as they enter the theater of operations. Second, the defender pre-empts the enemy. Third, the defender awaits the attack. Finally, the defender withdraws to the interior. The purpose in this final resistant action is to use time and space as a vehicle for weakening the opponent.[19] However, Clausewitz recognized that there was a limit to which the fourth case was effective.

As long as the attacker's strength was diminishing at a rate faster than the defender's, then it was to the defender's advantage to wait. Clausewitz recognized that at some point the defender must engage in battle. "While we may have more time and we can wait until the enemy is at his weakest, the assumption will remain that we shall have to take the initiative in the end."[20] Each advance by the attacking army led to a loss of territory and a corresponding loss of manpower and industrial potential.

The territory held by the advancing army was an unpaid mortgage which the defender must foreclose before force of arms settled the account. When the defender's balance sheet was no longer increasing relative to the attacker, the defender engaged in battle or lost everything:

> The tension continues to exist, and the decision is still to come. So long as the defender's strength increases every day while the attacker's diminishes, the absence of a decision is in the former's best interest; but if only because the effects of the general losses to which the defender has continually exposed himself are finally catching up with him, the point of culmination will necessarily be reached when the defender must make up his mind and act, when the advantages of waiting have been completely exhausted.[21]

The next occurrence in which Clausewitz discussed the culminating point was in Chapter Five of Book Seven, "The Attack." Here Clausewitz addressed the other pole of the idea which he had introduced in Chapter Eight of Book Six.

Success in a battle comes from a superiority in moral and physical strength. The attacker, through friction and application of force, loses his strength in some degree. This reduction in force arises from the need to secure rear areas and occupy terrain, economy of force operations, decreased will, sicknesses, and the defection of allies.[22] When the attacker's strength weakens, there arises a moment when "...the remaining force is just enough to maintain a defense and wait for peace."[23] If the attacker were to proceed beyond this moment, then the defender's moral and physical strength becomes superior to the attacker's. This moment, i.e., the moment when both forces are

in balance and the attacker's strength is sufficient to overcome the tension of warfare, Clausewitz called the "...culminating point of the attack."[24]

There is one more culminating point Clausewitz described. Clausewitz saw that there were times when the superiority of the attacker is not sufficient to defeat the opposing army. In such instances war is conducted to acquire certain advantages by the attacker over the defender. These advantages may even be psychological. The key consideration in such wars is that the attacker does not have the strength to destroy the opposing army, but does have the strength to achieve and maintain the political advantage and the equilibrium. This moment of equilibrium is called the "culminating point of victory."[25]

There are two promiment views about what Clausewitz meant by the "culminating point of victory." Some see it to be that point in which the the victory conditions have been reached. To go beyond the victory conditions for the sake of aggrandizement could actually create a situation in which the army is so weakened that the defender has the capability to counterattack and defeat an otherwise victorious army. Clausewitz appears to confirm this interpretation when he writes:

> ...the utilitization of victory, a continued advance in an offensive campaign, will usually swallow up the superiority with which one began or which was gained by the victory.
>
> At this point we are bound to ask: if all this is true, why does the winner persist in pursuing his victorious course, in advancing his offensive? Can one really still call this a "utilization of victory?" Would he not do better to stop before he begins to lose the upper hand?...

> Thus the superiority one has or gains in war is only the means and not the end; it must be risked for the sake of the end. But one must know the point to which it can be carried in order not to overshoot the target; otherwise instead of gaining new advantages, one will disgrace oneself.[24]

The passage provides some support to this first interpretation of the "culminating point of victory."

The second intrepretation understands that every attack leads to victory, i.e., peace, or ends in a defense of the attackers gains. The "culminating point of victory" occurs when the defender hasn't collapsed and the attacker is about to lose effective superiority.[27] This second view is broader than the first. It recognizes that there are campaigns which do in fact end in the successful attainment of the political goal. There are other campaigns, however, which do not have the means to attain the political goals. Regardless of which situation, there is a point of culmination which is the maximum point of success. To continue the campaign beyond this point runs the risk of defeat.[28] How do we resolve these two interpretations of Clausewitz?

Actually, there probably isn't any way to conclusively determine which of these two views are in keeping with Clausewitz's original thoughts. We, however, opt for the second interpretation as the more accurate understanding of what Clausewitz meant by the "culminating point of victory." We believe this to be the case because of one important passage in *Vom Krieg*:

> There is no need to cite historical examples in order to prove that this is how loss of superiority affects a strategic attack. Indeed, such instances occur so frequently that we have felt it necessary to investigate their underlying causes. Only with the rise of Bonaparte have there been campaigns between civilized states where superiority has consistently led to the enemy's collapse. Before his time, every campaign had ended with the winning side attempting to reach a state of balance in which it could maintian itself. At that point, the progress of victory stopped, and a retreat might even be called for. This culminating point in victory is bound to recur in every future war in which the destruction of the enemy cannot be the military aim...[29]

The above passage clearly distinguishes between two different ends. One end is total victory over the enemy. The other end is a negotiated peace at a position of military advantage.[30]

Napoleon was a general who could consistently achieve the first end. He was an historical aberration. The uncertainty of battle, the risk of defeat, and the burden of responsibility overwhelms the general. It is for these reasons that Clausewitz says, "...the great majority of generals will prefer to stop well short of their objective rather than risk approaching it too closely..."[31] These passages strongly suggest, then, that our understanding of the "culminating point of victory" is most likely the one closest to Clausewitz's own thought. We now return to our discussion of culminating points in general.

In each of the culminating points Clausewitz described, he implied an understanding of tension, equilibrium, and reaction. Clausewitz believed that there was a tension which

exists between the attacker and the defender. The clash of the military armies created this tension. As the war progressed there arose three possibilities.

First, the diminishing strength of the attacker, the increasing strength of the defender, or a combination of both brought the war to an equilibrium. This equilibrium remains in tension. The balance is broken when one of the parties' armies is able to overcome his opponent. Clausewitz called this balance point the culminating point. If the attacker proceeds beyond this point, then the strength of the defender out of inherent tension causes a reaction in the form of an attack. This counterattack, according to Clausewitz, ends in a situation disproportionately more advantageous to the defender.[32]

The second possibility is the end of the war. This may occur because the end state has been achieved. It may also occur because the equilibrium or culminating point fell short of the original goals. In the second instance, the attacker moderates his objectives and concludes the war with a negotiated peace. This second situation occurs ideally at the "culminating point of victory."

The third possibility--a maintenance of the equilibrium--realizes itself in conflicts short of war. Each side continually counters opposing increases in strength. There is an implicit danger to this last possibility. The longer the impasse continues, the greater the chance one side might achieve a momentary and unexpected increase in strength such as a

technological advance, a sudden famine, a breakdown in the alliance, etc. This windfall would lead to victory. We need to make an important distinction. The operational culminating point is not an operational pause.

The culminating point by Clausewitzian definition is a moment of balance within the operational plan. To proceed beyond this equilibrium would lead to a reaction--counterattack--by the defender. This reaction would end in embarrassment or the defeat of the attacker. The culminating point marks the end of an operational plan. To proceed beyond this point opens the attacker to the defender's violent reaction and significant risk. An operational pause, on the other hand, occurs when the attacker has come to a momentary suspension in the attack, but not in the operational plan. The overall strength of the attacker is still sufficient to achieve the ends.

C. Dual Strategies and Culminating Points

Every operational plan will end in one of two ways. Either it will achieve the defined end state, or it will fall short. When it falls short, this will also occur in one of two ways. Either it will fall short because it has reached an operational culminating point, or it will fall short because it has exceeded an operational culminating point and is suffering the effects of the violent reaction discussed by Clausewitz.

The end state in the operational plan may be the complete destruction of the opposing political state, or it may be a limited goal such as seizure of a province; however, the end state does not define the strategy. What determines the strategy is the operational culminating point. Why is this?

The failure of the operational plan leads to the failure of the strategy which leads to the failure of the political end state. An operational plan whose culminating point arrives before the attacker or the defender reaches the strategic objective is a failed plan. However, this does not mean that the strategic objective cannot be met. It merely means that the current operational plan fell short of the mark.

If the operational culminating point is not linked to a culminating point of victory in the theater, then a new operational plan with additional resources may still achieve the desired strategical end state. When the operational culminating point is linked to the culminating point of victory, however, the attacker has no other choice but to alter his political goals, change his strategy, or run the risk of defeat.

It is hard to predict or identify the culminating point of victory for a particular strategy. In fact, the operational culminating point will most likely be the first indicator that the culminating point of victory has been exceeded or at least reached. For example, the decrease in the water stream at the end of the hose is generally the first indicator that there is a

blockage in the source. The key to identifying the culminating point of victory and therefore the necessity to alter the strategy or sue for peace is an operational culminating point.

Every culminating point of victory has an operational culminating point either potentially or actually. We say potentially in that the attacker or defender may realize that the continuation of the plan is no longer practical. The attacker or defender will then opt to stop the current operations and develop a new strategy based upon different and usually reduced political goals. It is even possible that one or the other or both might sue for peace. The options, however, in changing the strategy involve either changing from a strategy of annihilation to a strategy of exhaustion, or changing from a strategy of exhaustion to a strategy of annihilation.

We have spoken sufficiently about culminating points and Delbruck's dual strategies. We now need to turn to the last area of discussion in this section. Can we model the relationship between culminating points and the strategies of exhaustion and battle?

D. The Strategic Model

The purpose of most models is to aid the user in understanding and identifying those factors which influence events. Some of these models purport to be accurate representations of the real world. Some are only approximations. Our model is meant to be a conceptualized representation of the factors which influence strategic success.

Assuming that strategic combat power is analogous to a physical force, then in a state of equilibrium the sum of all forces must equal zero. In warfare, this is the condition we find during peace. If a nation's military might was only a function of its actual army, therefore, we could explain all conflicts as an imbalance in actual military strength. However, warfare is not so simple. There are other forces which influence international stability. These international influences are potential forces consisting of participating, supporting, and neutral nations.

Participating nations are countries which involve themselves in direct military action. Supporting nations are countries which provide raw resources, economic assistance, industrial power, diplomatic support, basing rights, etc. Finally, neutral nations are all the others. Neutral nations are important to strategists when considering consequences of military actions. Their importance lies in their potential ability to influence the outcome of a war. The United States in World War One is an example of a neutral country which became a supporting nation and finally a participating state. Besides recognizing the impact the international scene has on a country's ability to go to war, we also recognize other factors which impact on operations and strategy.

All armies are like sharks--they have voracious appetites. Even a standing army which is not conducting wartime operations consumes resources. The army must, therefore,

replenish itself. The source of these replenishment is found in the mobilization potential of the country. This mobilization potential is dependent upon transportation assets, populace motivation, training base efficiencies, equipment availability, industrial might, oil supplies, and most important of all time available. If there is not sufficient time to bring the mobilization potential to the battlefield, then the nation's resources possess no value. There is one last factor which the defender possesses, but not the attacker.

Every defender has an inherent advantage merely because he is on the defense. This advantage is relative and consists of the inherent resistance of a defender's army mass. A more common term for this concept is the cohesiveness of the defense. The quality of this inherent resistance varies from army to army and organization to organization. These, then, are the factors which form our simplified model of strategic combat power.

The strategic combat power of the attacker would consist of his actual armed forces, participating military allies, nations supporting his effort, and his ability to sustain and replenish his forces by mobilizing his country's resources. The strategic combat power of the defender would mirror that of the attacker in all things with the addition, however, of the inherent advantage possessed by the defense. This means to say that in a state of equilibrium or peace both the attacker's forces and the defender's forces must be equal. Required and assumed by our model is the fact that the attacker and the

defender recognize this equality of forces. Experience also tells us that there are times when one force is superior to another, but there is no war. This occurs because the nation with superiority does not desire to attack. We express our model as follows:

$Force_{attacker}$ = (military army) + (participating nations) + (supporting nations) + (mobilization and sustainment potential)

$Force_{defender}$ = (military army) + (participating nations) + (supporting nations) + (mobilization and sustainment potential) + (defensive cohesiveness)

E. The Model, Culminating Points, and Strategies

We ended the last section by describing peace as a condition of equilibrium between opposing powers. During moments of tension, however, the equilibrium may shift. Our model tells us that this shift can occur in one of two ways: by either increasing one's actual military strength through mobilization, or by wooing supporting or neutral nations to one's side. If the opposing nation cannot either compensate for the enemy's new mobilized strength or if he cannot woo counterbalancing supporting or neutral forces to his side, then we have the possibility of war. There is a possibility in that there still must exist a desire by one side to attack and a desire by the other side to defend. This describes what occurs during the transition from peace to war.

As the war progresses, assuming that the attacker was able to exert enough force to overcome the inertia of peace, there are various events which occur. The consumption of the

attacker and the defender increases. According to ST 101-2 Planning Factors, for example, the personnel consumption rates of the attacker is generally three times as high as the defender on the first day of battle and two times as high in succeeding days. This difference in consumption rates is approximately true in all other categories.[33] The attacker must make up for his losses.

An attacker replenishes his losses by further mobilizing national assets, by counterbalancing his losses through the defeat of the opposing army, or by involving other nations in his effort. In a strategy of annihilation, the attacker attempts to offset his losses by accomplishing the second alternative. The attacker hopes to defeat the defender's army or a critical army in the defender's alliance. The concept in this strategy is simple. Once the defender's field army is not a factor, then the remaining elements of strategic combat power become irrelevant and the political leadership of the attacking country or alliance can dictate peace. The strategy of exhaustion approaches the problem differently.

In a strategy of exhaustion the attacker either cannot or does not wish to destroy the defender's army. The attacker opts, instead, to apply his entire spectrum of strategic combat power--not solely his field army--against the defender's vulnerable forces. These vulnerable forces may include the defender's field army, but not as an end in itself. The advantage to a strategy of exhaustion is that the attacker does not necessarily risk the loss of the field army. In fact, this

strategy could theoretically be conducted without ever risking a major battle. All wars, though, do involve some conflict between the deployed forces. Our model further aids us in understanding the effects of operational culminating points on the dual strategies of Delbruck's.

A culminating point of victory occurs when the strategic combat power of the attacker can no longer defeat the opposing strategic combat power of the defender to a degree sufficient to achieve the political end state. To exceed this point would cause a reaction by the defender such that the results would be decidedly to the advantage of the defender. An operational culminating point, however, is different depending upon the strategy being executed.

In a strategy of annihilation the operational plan seeks to destroy the defender's field army in battle. In a strategy of annihilation, therefore, the operational culminating point occurs when the field army of the attacker can no longer defeat the field army of the defender to a degree sufficient to achieve the operational objective of the campaign plan. When this situation occurs, our model leads us to some interesting conclusions.

Though the field army of the attacker is not sufficient to destroy the defender's field army, the attacker's total strategic combat power may still be greater than the defender's total strategic combat power. The fact that the attacker's strategic combat power is still greater than the defender's strategic combat power means that a shift in strategy could still

obtain the political ends. The attacker must change from a strategy of annihilation to a strategy of exhaustion. The purpose of the strategy of exhaustion would be to alter the defender's strategic combat power in a manner that eventually makes the attacker's field army strong enough to conduct a strategy of annihilation. If the attacker's field army still had sufficient strength to defeat the defender's field army, then a change in the operational method would be required--not a shift in strategy. We can also explain another reason for pursuing a strategy of exhaustion.

Recognizing that the operational culminating point of the attack no longer permits the attacker to follow a strategy of annihilation, the political authority may decide to consolidate or limit the political gains. Here is a case in which the strategic combat difference between the two camps is not sufficient to ever permit a return to a strategy of annihilation. The attacker simply does not have enough residual force which he can mobilize into a field army. He has achieved the culminating point of victory. We can also see the implications an operational culminating point has on a strategy of exhaustion.

A strategy of exhaustion does not seek to engage the opposing army in a decisive battle. The strategy seeks to overcome the opponent by systematically reducing the strategic combat power of the enemy across all of the defined power variables. Of the two strategies, the strategy of exhaustion requires a closer integration of the political initiatives and

the operational plan. The operational culminating point for a strategy of exhaustion occurs when the field army is incapable of decisively affecting any of the variables of strategic combat power. This may transpire because the defender suddenly receives new raw materials from external sources, or another country allies itself with the defender, or the attacker suffers internal difficulties, etc. At this moment, the attacker must determine whether an opportunity exists to destroy the opposing army. If it does, then a strategy of annihilation must be adopted. On the other hand, if the attacker cannot destroy the opposing army, then he must negotiate a peace treaty before the balance shifts in favor of his enemy. This is a case in which an operational culminating point is also the culminating point of victory.

III. Historical Example--the Yom Kippur War of 1973

There are a variety of historical examples which we could pick to illustrate the validity of our model. The Marne Campaign 1914, for instance, would be a good example. Another example would be the Korean War. Much has been written about both of these wars. However, it would be more beneficial to select a war within the past twenty years. For this reason we have selected the Yom Kippur War of 1973.

The Yom Kippur War provides a good example of warfare in an age of superpowers and client states. Both sides of this conflict, the Arabs and the Israelis, had the support of a superpower. Furthermore, they both realized that the superpowers would at some point intervene in order to bring the conflict to an end. Additionally, there were clearly defined political ends. We will examine the political ends of one particular theater of operations within this theater of war. We are speaking of the theater of operations at the Israeli Southern Front. The two protagonists in this theater were the Egyptians and the Israelis.

The political objectives for the Egyptians can be traced back to the end of the Six Day War in 1967. President Sadat was not pleased with the Israeli occupation of the Sinai Peninsula. He used military and political maneuverings in an effort to regain this lost territory. The peace talks with Israel reached a political stalemate. In order to break this stalemate,

President Sadat determined that military action was necessary. Additionally, Sadat's own internal political problems gave impetus for military action.[34] President Sadat decided to attack across the Suez Canal.

The initial plan for the military operation consisted of a clean sweep of the Sinai and the Gaza Strip. This operation was to destroy all enemy forces in the occupied zone. In short, this was a strategy of annihilation. Lieutenant General Saad el Shazly, the Egyptian Chief of Staff, disagreed. He felt that the Egyptian army did not have the means to achieve such an ambitious objective as the defeat of all enemy forces within the occupied zone. Instead, he felt that a more limited operational plan could achieve the political goal. Lieutenant General Saad el Shazly based this appraisal upon four factors.[35]

First, the weakness of the Egyptian air force prevented direct confrontation with the enemy. The plan was to use the air force for sudden ground strikes and to avoid air encounters. Second, the SAMs (surface-to-air missiles) had limitations in offensive actions. The SAM sites were static and could not move forward. Third, Israel's army had to be forced to fight under unfavorable conditions. Lieutenant General Saad el Shazly realized that the Israelis could not sustain a long war. The Israelis always were concerned about losing men. This forced the Israelis into *blitzkrieg* campaigns. Finally, there was a need to

fight a war with limited, but reachable goals. This was necessary so as to imbue a winning spirit into the Egyptian army.[36] Lieutenant General Saad el Shazly apparently recognized the relationship between operational culminating points and strategies. He advocated a strategy of annihilation whose object was the elimination of Israeli forces along the Suez Canal. This was an objective achievable before the Egyptian Army reached their operational culminating point. The second phase to this military success was the attainment of the political goals. This would be accomplished by altering the strategy from one of battle to one of exhaustion. The plan adopted by the Egyptians reflected this thinking.

The final plan was divided into two phases. The first phase was the crossing of the Suez Canal and the consolidation of the bridgeheads. The Egyptian's second phase was contingent upon a successful attack and heavy Israelis losses. If these two conditions were met, then the Egyptians would push on to the Sinai passes. If the two conditions were not met, then the Egyptians would continuing the consolidation of the east bank and await superpower intervention (the change to a strategy of exhaustion). The second phase was called Granite Two.[37] The Israelis had a different problem.

The political goal of the Israelis was national survival. The end of the Six Day War of 1967 saw the Israelis in possession of the Sinai and Gaza Strip. This occupation provided not only early warning and a buffer zone in case of renewed Egyptian

aggression, but was also a bargaining chip in negotiations to bring permanent peace to the Mideast. When the Soviets blocked peace efforts in the region, the Israelis held on to the territory. In September of 1967 the Arab Summit Conference at Khartoum passed a resolution which said that they would not negotiate with Israel, not recognize Israel, and not have peace with Israel. This laid the seeds for the Yom Kippur War in 1973.[38]

The Israeli strategic plan required three things:

> ...intelligence, which should give sufficient warning to mobilize reserves; a standing army, which would fight the holding phase of an enemy attack; and an air force, which had a large regular component. These three elements were designed to win time and hold the line until the reserves moved in and took over.[39]

It is clear from these three points that the Israelis were hampered by insufficient manpower to maintain a large standing army. This necessitated a *blitzkrieg* operation at the earliest opportunity with the goal of eliminating the opposing army. The strategy for the Israelis was two-fold.

In case of a small incursion, the Israelis would fight a strategy of annihilation, i.e., eliminating Egyptian forces on the east bank. In the case of general war, the Israelis had a short term strategy of exhaustion--holding the line until the arrival of the reserves--followed by battle. To meet this strategy in the Southern Command, the Israelis developed an operational plane called *Shovach Yonim* with a branch called *Sela*.

The operational plan *Shovach Yonim* consisted of two elements. First, the small standing army along the Suez Canal would block any attempts of a canal crossing by operating out of strongpoints manned by a total of 436 men.[40] Second, the Sinai Division would reinforce the strongpoints, protect vital areas and installations, and guard the Sinai passes. Included in the Sinai Division was a reserve armored brigade to be used as a reaction force against the main Egyptian effort. *Sela* was to be initiated in case of general war. This plan required general mobilization and a transition to the offensive as quickly as possible. This offensive would clear the east bank, and then counterattack cross the canal.[41] The Israelis knew that their greatest moment of strength would be in the early stages of war. They could not survive with a strategy of exhaustion.

The field army of the Egyptians was sufficient to overcome the canal obstacle. Five infantry divisions against 436 men were a decided advantage. Furthermore, as long as the Egyptians were protected by the SAM umbrella, they were immune to Israeli air attacks. In other words, the field army was significantly greater than the field army of their opponent. The supporting forces for both sides were also equal. These supporting forces included the Soviet Union and the United States. The Syrian army was a participating force in this war and served to draw valuable Israelis resources away from the Southern Front.

The initial mobilizing forces were weaker for the Israelis than for the Egyptians. This was primarily a result of the fact that the Israelis did not have their field army deployed while the Egyptians did. Time was critical to the Israelis. They needed time to mobilize and therefore neutralize the initial advantage of the Egyptians. The cohesive strength of the Israeli strongpoints was high, but their defensive combat advantage was small. Using our model, we can make some observations.

The overall strategic combat power for the Egyptians was probably less than the overall strategic combat power of the Israelis. This is especially true in light of the dominance Israelis air power played in the '67 war. However, the Egyptian were able to succeed in the beginning because of two factors. First, initially their field army was stronger than the Israelis; and second, the SAM umbrella effectively neutralized a major combat feature of the Israeli army. The Egyptians did not successfully exploit their initial advantage, but they did achieve their operational objectives before reaching their operational culminating point. This operational culminating point was readily apparent.

Due to the offensive limitations of their SAM sites, the Egyptians could only maintain their greater operational strength a limited distance into the Sinai Peninsula. This operational advantage was dependent upon neutralization of the Israeli air force. Without the destruction of the air force, the operational plan could not proceed beyond the east bank. This meant that the

operational success was not possible beyond the SAM umbrella. We have a culminating point effectively associated with a weapon system's range limits.

The Israelis, on the other hand, needed a decisive battle in order to achieve the operational objectives of *Sela*. Without their air force, this decisive battle was not possible. Their field army was not sufficient in itself to destroy the Egyptian force--a requirement in a strategy of annihilation. Not having to worry about air attacks, the Egyptians could employ their mobile reserves and overcome any Israeli effort to cross the Suez Canal. It appeared that the Egyptian strategy of exhaustion would be as successful as their strategy of annihilation. However, sometimes defeat is snatched from victory.

On 14 October 1973 the situation changed. The Egyptians, because of pressure from Syria and most likely intoxicated with their initial successes, implemented their plan to attack forward to the Sinai passes. This operation carried them outside their SAM umbrella and also committed their mobile reserves. The Egyptian field army had radically altered its strength relative to the Israeli field army. The Israeli air force became a key player and was able to decisively defeat the Egyptian attack. Our model tells us that such a drastic shift in field strength should lead to the demise of a strategy of exhaustion. Key to a strategy of exhaustion is the existence of the field army. The army is not to be lost. Though the Egyptians did not actually lose their army, they did lose its ability to influence future

action. In essence, the Egyptian Operation Granite Two surpassed its operational culminating point within the time it took to cross the SAM umbrella.

Our model also tells us that a strategy of annihilation demands that the field army of the attacker be sufficient to decisively destroy the defender's army. With the defeat of the Egyptian 14 October operation and the completion of Israeli mobilization, the Israelis had the strength necessary to operationally achieve a strategy of annihilation. They were able to attack across the canal and neutralize the SAM umbrella. They then isolated the Egyptian Third Army. Even though the ends were limited, the means were not. The Israelis were able to achieve their operational goal. Because they had not surpassed their operational culminating point, they were able to maintain their field army and the operational equilibrium in their favor.

From the example of the Yom Kippur War of 1973, our model has demonstrated the ability to describe operational plans, their successes, their failures, and the impact operational culminating points have on strategic success. It also illustrated another important point.

The Egyptian decision to attack toward the passes was caused by pressure from the Syrians.[42] Here is a case in which the operational plan was changed to accommodate political considerations in an alliance. Our model demonstrated that an attack by the Egyptians beyond the SAM umbrella doomed a strategy

of annihilation to failure. Furthermore, it ran the risk of severely changing the ratio of field armies to such an extent that their strategy of exhaustion would be defeated--and was.

Exceeding the operational culminating point of the second operation resulted in a situation which exceeded the operational culminating point of the first operation. For a political accommodation, the Egyptians lost both operations and permitted the Israelis to win theirs. This is a good example where the Egyptians had achieved their culminating point of victory and then surpassed it.

IV. Conclusion

We have analyzed the relationship between operational culminating points and strategies. We began by examining the German words *Ermattungsstrategie* and *Niederwerfungsstrategie*. This examination concluded by our defining *Ermattungsstrategie* as a "strategy of exhaustion," and *Niederwerfungsstrategie* as a "strategy of annihilation." We then sought an understanding of the theory behind these two strategies and operational culminating points as explained by Hans Delbruck and Carl von Clausewitz. With this theoretical thought, we developed a model which conceptualized the elements of strategic combat power as:

$$Force_{attacker} = (military\ army) + (participating\ nations) + (supporting\ nations) + (mobilization\ and\ sustainment\ potential)$$

$$Force_{defender} = (military\ army) + (participating\ nations) + (supporting\ nations) + (mobilization\ and\ sustainment\ potential) + (defensive\ cohesiveness)$$

Using our model, we described how operational culminating points are intricately linked to the strategic plan. This linkage is critical to overall success.

The operational culminating point brings the operational plan to a termination. In a strategy of annihilation, this means that the strength of the attacker's military force is no longer sufficient to win the decisive battle. Consequently, the attacker needs either to opt for a strategy of exhaustion or to negotiate a peace treaty with a moderation in his original political goals. In a strategy of exhaustion, the operational

culminating point occurs with the loss of the field army and sustainment potential to maintain the equilibrium. The loss of the field army means that the enemy can occupy and destroy the mobilization and sustainment resources of the homeland. Our case study of the Yom Kippur War of 1973 illustrated the validity of our theory and we learned an important lesson in regards to culminating points and operational plans.

The linkage between operational culminating points and national strategies demonstrate the danger of unfounded hopes. Traditionally, political and military leadership will not abandon a strategic or political end state once they have begun the war. Rather than change, they will mold reality to meet their wishes. It is hard to abandon political goals in war; consequently, it his hard to abandon their strategies. Leaders believe their hopes and not the reality. Our analysis, however, tells us that operational culminating points are unforgiving in their impact on strategy. The political and military leadership must be open-minded so as to modify and even abandon their current strategic or political goals. The Egyptians were not able to face the limitations of their operational plan and reached for strategic goals beyond their grasp. The result was the defeat not only of their first plan, but also their second.

In conclusion we admit that our model is rough and that further exposition is necessary to refine it. However, its beginnings demonstrate that it has utility in elucidating the relationship between operational culminating points and the

strategies of exhaustion and battle. The brief insights gained from using our model tells us that planners must not overlook the significance operational culminating points have on strategies. This is especially critical during a time when the United States military faces an austere budget. Attempting to achieve strategic objectives beyond the grasp of the operational culminating point can only lead to disaster.

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1. Discriminate Deterrence, The Report of The Commission on Integrated Long-Term Strategy (Washington, DC: United States Government Printing Office, 1988), p. 56.

2. Gordon A. Craig, "Delbruck: The Military Historian." Makers of Modern Strategy from Machiavelli to the Nuclear Age, ed. Peter Paret (Princeton: Princeton University Press, 1986), p. 352. Direct quote as cited by Craig from *Die Ursachen des Deutschen Zusammenbruches im Jahre 1918* (Vierte Reihe im Werk des Untersuchungsausschusses), (Berlin, 1920-1929), 3:253.

3. Hans Delbruck, History of the Art of War within the Framework of Political History (*Geshichte der Kriegskunst im Rahmen der politischen Geschicte*), Vol. IV, trans. Walter J. Renfroe, Jr., (Westport: Greenwood Press, 1985), p. ix. We will refer to this work as History of the Art of War throughout the remainder of this paper.

4. Delbruck, Translator's Forward.

5. *Deutsches Worterbuch*, ed. Gerhard Wahrig, (Munchen: Mosiak Verlag GMBH, 1980), p. 1163.

6. *Deutsches Worterbuch*, p. 2484.

7. *Deutsches Worterbuch*, p. 1163.

8. Delbruck, p. 294.

9. Richard Simpkin in his book Race to the Swift: Thoughts on Twenty-First Century Warfare, (New York: Brassey's Defence Publishers, 1985), pp. 19-23, does an admirable job of explaining the underlining principle of battles as attritional warfare.

10. Delbruck.

11. Delbruck.

12. *Deutsches Worterbuch*, p. 2693.

13. *Deutsches Worterbuch*, p. 468.

14. Delbruck, p. 293.

15. Delbruck, p. 294.

16. Delbruck, p. 293.

17. Bucholz, Hans Delbruck & the German Military Establishment, p. 35. Footnoted by Bucholz from Delbruck's *Die Strategie des Perikles*, pp. 7-12.

18. Bucholz, Hans Delbruck & the German Military Establishment.

19. Carl von Clausewitz, On War (*Vom Krieg*), ed. and trans. Michael Howard and Peter Paret, (Princeton: Princeton University Press, 1984), pp. 380-382.

20. Clausewitz, p. 383.

21. Clausewitz.

22. Clausewitz, p. 527.

23. Clausewitz, p. 528.

24. Clausewitz.

25. Clausewitz, p. 570. This entire Chapter Twenty-Two in Book Seven clarifies the notion of the culminating point of victory.

26. Clausewitz.

27. Clausewitz, p. 698. Bernard Brodie's commentary on Clausewitz's *Vom Krieg*.

28. Clausewitz, p. 570.

29. Clausewitz.

30. Clausewitz.

31. Clausewitz, p. 573.

32. Clausewitz, pp. 221-222, 570-571.

33. ST 101-2, Planning Factors, (Fort Leavenworth: Command and General Staff College, 1985), p. 4-27.

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35. Saad el Shazly, The Crossing of the Suez, (San Francisco: American Mideast Research, 1980), pp. 27-28.

36. Shazly, pp. 24-27.

37. Shazly, pp. 36-39.

38. Herzog, pp. 189-191.

39. Herzog, p. 230.

40. Herzog, p. 243.

41. Avraham Adan, On the Banks of the Suez, (Jerusalem: Edanim Publishers, 1979), pp. 57-58.

42. Adan, pp. 234-235.

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