PATTON AND THE CONCEPT OF MECHANIZED WARFARE

by

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Coming to terms with the industrial revolution caused a crisis of some sort in nearly every modern army. For most, the crisis was introduced by the machine gun, which mechanized the production of firepower. The resultant increase in the power of the defense overturned most of the Napoleonic tactical principles that had been so laboriously worked out during the previous century. But the mechanization of movement made possible by the gradual military adaptation of the principles of automotive transport threatened to revolutionize all aspects of warfare. As a result, during the decades separating the two world wars, the major source of military controversy in nearly every modern army was the issue of introducing the internal combustion engine into warfare on the ground and in the air.

On the ground the debate centered on the tank. At issue was not whether tanks should be used in warfare—all doubt on that question had vanished during the war—but how they were to be used. In nearly all major armies this controversy was ignited by the claims of a radical minority that warfare should be revolutionized by supplanting the traditional combat arms with totally new mechanized forces designed to fight the innovative mobile and strategic forms of warfare described in the works of J. F. C. Fuller and Basil Liddell Hart. These claims, in turn, aroused the opposition of a larger group which generally would allow mechanized weapons no more than a supportive and tactical role within the traditional combat arms, which were expected to fight war in a conventional manner.[1]

In the United States Army the traditionalist outlook remained particularly dominant throughout the interwar period. This dominance was not due to a repressive conservatism imposed from above: The American Army was too fragmented in its structure to allow this, and its command leadership depended more on consensus than on coercion in exercising control. The problem lay, rather, in the institutional and intellectual obstacles that stood in the way of effecting change within the Army. Given the continued disaggregated structure of the Army, significant change could not be made without the mobilization of some degree of consensus among the officer corps. While the Army had the communications networks necessary for such a mobilization (professional journals and schools reinforced by widespread webs of private correspondence), it was also necessary that officers be receptive to change and adaptive in their thinking. While most American officers in this period saw themselves as professional and progressive students of warfare, there were still many aspects of their mental outlook that made accommodation to rapid or far-reaching change difficult. A study of the changing attitudes of one officer in this period, George S. Patton, Jr., toward the issue of mechanized warfare illuminates some of the problems faced by many of the others in making the adaptations it demanded.

Actually, Patton might appear to have been a unique case in this regard. He had more exposure to tanks than almost any other American officer of his time. During the First World War he organized the American Tank School in France and then led the first American tank units in battle. In the interwar period he continued to read extensively about mechanized warfare and wrote and spoke on the subject often.[2] In 1940 he was among the first officers chosen to command a major mechanized unit in the two armored divisions finally being formed. Yet, despite the fact that he had an exposure to tanks that was longer and more extensive than that of almost any of his peers, his attitudes toward mechanization were basically traditionalist. During the 1920s and early 1930s he was one of the most outspoken defenders of the traditionalist military outlook and one of the most caustic and popular critics of the concept of mechanization. And while, by 1940, he had come to accept many of the ideas of the mechanizationists, this adaptation was a slow one which involved a complex interplay between traditionalist values and professional appraisals of the changing nature of warfare. Thus, in coming to terms with mechanization Patton was different from most of his fellow officers only in that he was somewhat more successful in making the mental adaptations necessary and much more vocal in doing so, leaving behind a wealth of articles, lecture notes, letters, and reports to mark the trail of his evolution.

In his intellectual attitudes and outlooks, George S. Patton, Jr., was truly a product of pre-industrial America.[3] He was raised in the ranching country of southern California in a wealthy family which still identified with the values of the Confederate South. His education was heavily classical in both subject and outlook and emphasized the belief that success in life was measured by the development of inner character. Patton's post-secondary education at Virginia Military Institute and West Point served mainly to reinforce this and other values already held. Moreover, by the end of his undergraduate education, Patton had managed to organize his outlooks into an ideological system that possessed a considerable internal coherence, providing him a highly stable base from which to examine any issue. Two aspects of that ideological system were extremely important in shaping his outlook toward mechanization and therefore are worth a brief look.

The first of these was a set of interrelated ideas that arose from Patton's intensive consciousness of history. As was the case with many of his fellow military professionals, Patton loved history. It was by far his best subject in secondary school[4] and at West Point he repeatedly extolled the study of history as the only path to professional success.[5] Yet, outside of flavoring his later writing with historical examples, Patton never made serious use of history in his own professional development. In fact, in the mid-1920s he declared history to be inadequate as a means of learning military leadership.[6] Instead, what history provided Patton was an intellectual underpinning for his existing values and, more important, a means of understanding his world and the changes he perceived going on within it.

Part of his orderly view came from the perspective offered by history and especially by the classical history on which Patton was raised. From this perspective Patton deduced early in life that while the character of man's activities might change over time, man's nature did not. Hence, warfare, as a human activity, was made up of both an inner essence that remained immutable over all time and outward manifestations of that essence that could be expected to change with time. As he wrote in 1927, "Our difficulties

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differ in manifestation but not in nature from those Alexander experienced or Caesar knew."[7] Patton used this perspective to legitimize change in his world, and especially changes in weapons, since Patton lumped all weapons in the area of manifestations. The tank, born in the trench warfare of the First World War, Patton argued repeatedly, was merely a manifestation of the moving siege towers used by Alexander the Great against Tyre in 333 B.C. Again facing problems similar to those overcome by Alexander, man had merely "reinvented" the tank.[8]

Yet this historical perspective would not legitimize everything. Weapons or doctrines devised to deal with unique situations falling outside the universal character of war were not to be considered legitimate. Nor could weapons developed to deal with one distinct military function be legitimately adopted for another. The tank, as a reintroduced siege weapon, was not automatically a legitimate weapon for cavalry. And, of course, any revolutionary doctrine such as mechanized warfare that denied the existence of a timeless and immutable central essence of warfare was, itself, illegitimate.

On a larger scale, history also provided Patton a simplified cosmology for understanding not only his own particular relationship with society but also developments within that society. The basis of this cosmology lay in his vision of Roman history. In that history he saw as the central event the Punic Wars, in his mind a clash between a young, virile, idealistic, and collectivist Roman society and a soft, materialistic, and selfishly individualistic Carthaginian society. Yet, while Rome triumphed in that struggle, its victory was only temporary, as rising materialism, complacency, and a loss of combativeness led eventually and, perhaps inevitably, to its own decadence and destruction.[9] Throughout his life Patton generalized this model, using it to explain not only the distance in sentiment between American society and its military forces, but also the effects of industrialization and prosperity on American society.[10] The result was that Patton tended to hold himself aloof from a society he saw becoming like Carthage, and especially from its industry and the fruits thereof.

The second important aspect of Patton's ideological system was his vision of war, which was human-focused rather than political. For him war was not an abstract instrument of policy but a periodic manifestation of the human character. As such, its essence was conflict between men. In war, man was central; all the rest—strategy, tactics, organization, and especially weapons—were peripheral. He stated this theme most explicitly in 1926, writing,

> It is the cold glitter in the attacker's eye not the point of the questing bayonet that breaks the line. It is the fierce determination of the drive to close with the enemy not the mechanical perfection of the tank that conquers the trench. It is the cataclysmic ecstasy of conflict in the flier not the perfection of his machine gun that drops the enemy in flaming ruin.[11]

Patton repeated this message of the ascendancy of man over weapon in nearly every article or lecture he wrote. This vision of warfare affected Patton's attitude toward mechanization in two ways. First, much of the mechanizationist argument depended upon an appreciation of the capacities of the tank, placing the focus on the weapon rather than on man. Second, seeing conflict as the essential character of war tended to center Patton's interest on tactics much more than on strategy. While he became a bit more strategic in his outlook in the 1930s, Patton always saw war in terms of the climactic Napoleonic battle and therefore had less interest in the mechanizationists' more strategic vision of war.

Finally, it must be made clear that while his perceptions of history and war influenced Patton's interpretation of reality, they never blinded him. Patton had a curiosity and a desire to lead, as well as a kind of impishness, which made him quite receptive to new ideas and new things. He also had sufficient intellectual integrity to insure an honest evaluation of whatever he encountered. Last, and most important, Patton had a highly

developed imagination which was vital in dealing with mechanization. While tanks had been used in the First World War, they had acted only in support of traditional military operations. The new concepts of the mechanizationists had never been tried in combat, so they could be evaluated only on the basis of imaginary constructs, an area in which most empirically-minded military professionals felt fairly uncomfortable, but in which Patton moved with great ease.[12] However, while these intellectual assets allowed Patton to be more receptive to the ideas of the mechanizationists, his firm traditionalist founding still proved a formidable obstacle to any serious transformation in his thinking, even over the distance of a long career.

Patton began that career by establishing himself firmly within the traditionalist camp, though he also demonstrated his capacity to see outside of it. Within his first four years of service he had already made a name for himself by participating successfully in the 1912 Olympics[13] and by redesigning the cavalry saber to improve its qualities as an offensive weapon.[14] Patton also had acquired an interest in the automobile. He bought a car at his first duty station and later took one apart and reassembled it. His service on General John J. Pershing's staff in the punitive expedition into Mexico in 1916 led him to see the military value of the automobile,[15] and when he applied for service on Pershing's staff in the American Expeditionary Force in 1917, he listed an understanding of gasoline engines as one of his assets.[16]

It was initially a concern for his career, however, rather than an interest in automobiles that led Patton to join the nascent Tank Corps as it was being formed in France in late 1917. Patton then was desperately seeking an escape from staff duty, which he found boring and without career potential. While he considered shifting branches in order to get command of an infantry battalion, he decided that greater chances for promotion lay with the tanks.[17] Yet once associated with tanks, Patton developed an attachment for them that transcended career concerns, and he began early to accommodate them intellectually into his traditionalist world. Not only was the introduction of tanks legitimized by association with Alexander the Great, but Patton also developed the habit of referring to them in animalistic terms, and in his attempts at poetry he tried to give the tank service the same aura of romantic respectability enjoyed by cavalry.[18] All this culminated for Patton in several opportunities to lead his tanks in combat, an experience which he found to be "thrilling"[19] and which allowed him sufficient opportunity for traditional heroism to win the Distinguished Service Cross.

Thrilling and fulfilling as this wartime experience with tanks may have been, Patton's view of their role in combat remained unabashedly traditional. Shortly after the war he noted that "immense as the influence of mechanical devices may be, they can never of themselves decide a campaign. Their true [role] is that of assisting the infantry man . . . . They can never replace him."[20] The dreams of the enthusiasts about mechanical armies he derided as "absurd."[21] This traditionalist vision was, perhaps, reinforced by a vague fear that tanks could lead to an industrialization of warfare. Patton seemed distinctly alert to tendencies in that direction. In April 1917, he wrote to his wife, "right now I am more like Henry Ford than a soldier,"[22] a feeling that he repeated on several other occasions. He feared that peacetime would accentuate this industrial character of tank service, leaving it "very much like coast artillery with a lot of machinery that never works."[23]

Patton's attachment to the tanks kept him in the Tank Corps for nearly two years after the end of the war, during which time he campaigned actively in favor of granting the corps status as an independent combat arm.[24] This position, which was quite at variance with his wartime orthodoxy, was apparently adopted by Patton more out of expediency than from a real shift in attitude. It was the

line being taken by his commanding officer and other officers in the corps, and an independent status for the corps offered Patton his best chance for promotion. His arguments along this line, however, contained little that would appeal to professionals, and he abandoned them afterward.

Patton left the Tank Corps in October 1920 in a mood of increasing pessimism regarding the future of both the country and the Army. The National Defense Act of 1920 had not only ended the independent status of the Tank Corps (and the career prospects Patton had earlier associated with service in the Tank Corps), but had also gutted the Army, indicating a rapidly developing public disaffection with its armed forces. Patton explained this development to himself in terms of the Carthaginian tendency of American society,[25] and like many of his colleagues he turned his attention to the preservation of the professional integrity of the Army. For the next eight years, his interest in tanks and mechanized warfare diminished considerably.[26] His principal concern, instead, was the problem of command and his perception that a rapid invasion of civilian attitudes was undermining the traditional heroic model of military leadership.[27] Not only were officers becoming too concerned with their own personal security in combat, but they were being taught that a scholarly approach to leadership was superior to a moral one, that "brains outrank guts."[28] In this mood, he tended to view the Army's interest in mechanization as another form of the civilian invasion of the military world. It was the public's fascination with things mechanical and its susceptibility to the "histrionic abilities" of the mechanizationists that were forcing the Army to pay what he considered to be undue consideration to the issue. Patton's response was a volley of arguments emphasizing the actual limitations of existing military vehicles and reiterating the idea that war was made by men, not machines.[29]

The year 1928 proved to be something of a turning point both for mechanization in the United States and for Patton. The successful development of several fast tank prototypes that year provided the vehicles needed by the theories of the mechanizationists, while a successful summer maneuver by an independent mechanized unit in Great Britain seemed to vindicate those theories and led the Secretary of War to commit the American Army to the development of its own experimental mechanized force.[30] Meanwhile, in May 1928 Patton was transferred to the Office of the Chief of Cavalry as head of the Plans and Training Division. The Office of the Chief of Cavalry was then much concerned with mechanization but in an ambivalent way. On the one hand the office was the political and intellectual citadel of traditionalism within the cavalry. It published *Cavalry Journal* and coordinated all lobbying efforts on behalf of the cavalry. Its major concern in this area was to counter mounting pressures in favor of supplanting horse cavalry with armored vehicles. On the other hand, the chief's office was mandated by law and by the expectations of military professionals to develop the weapons and doctrines needed by the cavalry to meet new situations.

Patton's position in the office was particularly ambiguous, since he was expected to head both enterprises.[31] His initial response to this was to seek a middle ground that would allow the cavalry the appearance and some of the advantages of mechanization without diluting its traditional character. Several years earlier he had supported the idea of attaching several troops of armored cars to a cavalry division to act in cooperation with horse units.[32] By late 1928 the cavalry was ready to accept this limited mechanization. Division maneuvers involving organic armored-car troops were held in October 1929, with Patton observing for the Chief of Cavalry.[33]

Patton initially defended this modest concession as representing the limit of mechanization necessary,[34] supporting his position with more articles and lectures on the continued value of horse cavalry. Nevertheless, by the spring of 1930 his evaluation of developments in other armies convinced him that in almost any future combat situation American cavalry could expect to

encounter hostile armored vehicles.[35] A mechanization limited to armored cars capable of operating only on roads would obviously be an inadequate response to such a situation. While he agreed that the problem might be met temporarily by developing mobile .50-caliber machine guns for horse pack as antitank weapons,[36] he was rapidly becoming convinced that a more far-reaching solution was called for and that this solution involved the tank.

Earlier Patton had argued that there was no place for the tank in the cavalry, since "at present there is no tank . . . which can keep up with Cavalry."[37] However, the appearance of the new fast tank prototypes in 1928, and particularly the model developed by J. Walter Christie, caused him to reconsider. The Christie prototype was capable of rapid maneuver on either wheels or tracks, so that it seemed to offer the advantages of both the armored car and the tank. In June 1929, Patton pressed the Chief of Cavalry to purchase several Christie prototypes for experimental purposes, but without success.[38] In 1930, General Guy V. Henry, who was more flexible on the mechanization issue, became Chief of Cavalry, and with his encouragement Patton began to develop proposals that would further mechanize the cavalry. By early 1931 he was arguing that the cavalry could not hope to counter expected enemy armored vehicles unless it possessed armored vehicles of its own.[39] While Patton cautiously referred to such vehicles as "heavy armored cars," it is clear that he had Christie tanks in mind. At the same time, in his historical references the tank was increasingly referred to as the modern descendent of the armored knight, or chariot warfare.[40] By mid-1931, Patton was urging the Chief of Cavalry to employ all possible available resources to acquire heavy armored cars.[41]

Contact with the reality of current military trends was not, however, the most important force that pushed Patton toward accepting the tank. Efforts over ten years to defend traditional horse cavalry had caused him to refine considerably his traditionalist attitudes, leading him to a vision of warfare that was more mobile, strategic, and mechanized. Repeated emphasis of the cavalry's critical role in reconnaissance led Patton from his earlier tactical and battle-centered vision of war to a conception that was more campaign-oriented and strategic.[42] Similar efforts to dissociate American cavalry from the failures of European cavalry during the First World War on the grounds that Americans belonged to the dragoon rather than the cuirassier tradition of cavalry led Patton to envision cavalry less as a unit capable of shock action in battle and more as a self-contained organization that emphasized maneuver and firepower.[43]

Finally, and most important, for over ten years Patton and others had argued that one could make no judgment about the future of cavalry on the basis that it had not been used in the First World War, since that war had been of a unique character unlikely to be seen again.[44] For Patton this argument was not a matter of expediency but represented a genuine and deeply troubling sentiment. Within a short time of his arrival in France in 1917, Patton came to feel that the conflict there was not real war.[45] Ever since he had first encountered warfare in history, real war had meant to him movement and decisiveness. West Point and his experience in Mexico had reinforced that view, so that he saw the static and indecisive trench warfare that he found in France in 1917 as an unhealthy aberration.[46] During the war and for the next dozen years afterward, Patton mulled the question of what had gone wrong, reaching the conclusion that the culprit was the mass army.

Patton's aristocratic upbringing, his classic and heroic value structure, and his ambition for preeminence left him little capacity to accept democratic values or institutions. By the time he had left West Point, Patton was a full-fledged Uptonian in his conviction that only professional military organizations were of any value.[47] Contact with reserve officers in subsequent years tended to reinforce these views.[48] In the late 1920s Patton became deeply interested in the writing of Ardant du Picq[49] and in that of current French and German military figures

who extolled the values of the professional army. This reading helped Patton clarify his earlier views and led him to argue in 1930 and 1931 that while the huge conscript armies raised in 1914 and thereafter had been relatively easy to supply over Europe's magnificent transportation network, they were too massive and ill-trained to maneuver. As a result, the conflict in Europe had quickly stabilized along extended parallel lines so that war became a matter of attrition rather than movement.[50] For Patton, attrition degraded warfare from a form of human conflict into an industrial process in which "the inert human masses became fodder for their equally inert masses of machines."[51]

In Patton's mind, the obvious solution to this problem was to reject the wrong turn taken toward mass industrial warfare in 1914 and to return to the traditional warfare of maneuver, to be fought now by small, highly mobile, and fully professional armies. He spelled out this idea in great detail in his major student paper at the Army War College in 1932, giving it a broad historical introduction,[52] and it remained fundamental to his thinking during the rest of the decade. For a while he continued to claim that horse cavalry would play a number of major roles in such a force, arguing that mobility meant flexible speed, which could be gained only by a force made up of horse and machine units working in complementary fashion.[53] Later, however, he began to drop that argument, and the roles assigned to horse units in his imagined force began to diminish.

Thus, during the four years spent in the Office of the Chief of Cavalry and at the Army War College, Patton had come to accept a vision of warfare involving armored vehicles organized as self-contained units operating on a strategic as well as a tactical basis, a vision not too far removed from that of the mechanizationists.[54] Yet he got there principally by means of a reactionary line of thought, to the degree that he was still able to see himself as a defender of tradition. As such, he continued to criticize the "pure mechanizationists" vigorously and to point out repeatedly the limitations of armored vehicles. Thus, while there may have been a significant convergence between Patton and the mechanizationists in regard to the arms and doctrines both advocated, they were still as far apart as ever on the philosophic bases on which their ideas were founded. What the mechanizationists had proposed as a revolutionary means to overthrow an outworn traditional system of warfare, Patton had finally come to accept as an evolutionary means to restore it.[55]

Patton's subsequent assignments during the 1930s brought him into contact with other problems, and for a number of years his interest in mechanization faded.[56] Later, the Spanish Civil War and the growing feeling that a new European war was imminent rekindled that interest to some extent, leading to some refinement in his ideas. Patton was now willing to give significant reconnaissance and even tactical roles to aircraft and almost none to horse units.[57] At the same time he continued to attack mechanizationists for their lack of realism and for pandering to the public's craving for security from a draft.[58]

In July 1940 the Army committed itself to the creation of a mechanized force. Brigadier General Adna R. Chaffee, who had been one of the leaders of the mechanizationist movement since 1928 and who was now slated to head the new armored force, invited Patton to take command of a brigade in the new Second Armored Division. Patton accepted eagerly and threw himself immediately into training his unit. Gathering his unit for a lecture in early September, he explained, among other things, that the key to German success in this war was the fact that "they did not use weapons because they were new, but because through their use, age-old military tasks could be better accomplished."[59] Patton had joined the mechanizationists; yet he remained a traditionalist.

It would seem that at least two conclusions could be drawn from this brief survey of the development of Patton's vision of mechanized warfare. First, by the late 1930s Patton had developed a rather perceptive insight into the nature of the warfare that would emerge in the opening stages of the

Second World War. Doing so required a major transformation in Patton's thinking on how tanks were to be used in combat. Giving them initially a role strictly subordinate to the traditional combat arms, he gradually came to accept a view of mechanized warfare similar to that of the mechanizationists. Yet this transformation in thinking was episodic in its development, with most changes taking place when Patton had responsibilities directly linked to tanks. At other times, interests created by other assignments and the inhibitions arising from his traditionalist vision of the nature of war and of legitimate change all but halted any development in his thinking in this area. These latter circumstances were common to many other officers in the Army, which may help explain the slowness of the Army in accepting the ideas of mechanization.

Second, while Patton came to adopt much of the mechanizationists' style of warfare and even to make himself a master of it, he did so by incorporating it into his own traditional outlook, so that the latter survived the transformation intact.[60] The fact that Patton and many of his fellow officers could modernize their style of fighting without disturbing their traditionalist outlook may partially explain their ability to maintain a sense of stability and self-assurance within the confusion of a new kind of warfare. It may also help explain why the Second World War so quickly assumed a traditional character.

NOTES

1. There are a number of works of varying quality on the history of mechanization in Europe and the United States. Among the most significant recent general works are Kenneth Macksey, *The Tank Pioneers* (London: Janes, 1980) and Charles Messenger, *The Blitzkrieg Story* (New York: Scribners, 1976). For individual countries, Basil H. Liddell Hart, *The Tanks* (London: Cassell, 1959), provides a two-volume chronicle of the development of British mechanization. Richard M. Carver, *The Apostles of Mobility: The Theory and Practice of Armoured Warfare* (New York: Holmes and Meier, 1979), provides an updated and far briefer survey. French, German, and Russian developments have not yet received coverage by individual books. The development of Italian armor is covered in John J. T. Sweet, *Iron Arm: The Mechanization of Mussolini's Army 1920-1940* (Westport: Greenwood Press, 1980). The standard, though now dated, work on the development of mechanization in the United States is Mildrid H. Gillie, *Forging the Thunderbolt:History of the Development of the Armored Force* (Harrisburg: Military Services, 1947).

2. By his own count, by 1934 Patton had written over 30 articles or papers on the subject. He had probably lectured on the topic even more often.

3. There are at least 16 biographies of Patton of one sort or another, most of which emphasize his career in the Second World War. By far the fullest is Martin Blumenson, *The Patton Papers* (Boston: Houghton Mifflin, 1972, 1975).

4. During his last year in high school, his final examination grade in history was 95, while his average grade in all other courses was 68. Stephen Cutter Clark, "Report of George S. Patton, Jr., for the term ending April 8, 1903." George S. Patton, Jr., Papers, Library of Congress, Box #5, "Chronological File: April-Dec. 1903." Hereinafter references from these papers will be cited as GSP followed by the box number and file title. Works by Patton himself will be cited without reference to the author.

5. Blumenson, pp. 150, 185.

6. "The Secret of Victory," 26 March 1926, GSP #50, Military Writings, 1926.

7. "Why Men Fight," 27 October 1927, GSP #50, Military Writings, 1927.

8. "Notes for Lectures," n.d. (1918-1920), GSP #12, Chronological File October-December, 1920.

9. "Final Examination in Roman History," 1903, GSP #48, Military Writings, 1903-1909.

10. This theme can be seen repeatedly in his work but was particularly evident in his poetry written during and after the First World War. See "End of War," 30 December 1917, and "Defeat," 16 January 1921, GSP #60, Poems.

11. "The Secret of Victory."

12. Patton was continually critical of his fellow officers for their lack of imagination, saying after the First World War that the "lack of imagination is the besetting sin of our army with respect to tanks." "Notes for Lectures."

13. He took fifth place in the modern pentathlon, a contest involving use of the pistol and saber as well as running, swimming, and riding. Blumenson, pp. 248-55.

14. Patton took fencing lessons in France and later taught fencing to cavalry officers. He wrote an instructor's manual for the teaching of fencing, and published three articles in *Cavalry Journal* on the saber.

15. Blumenson, pp. 359-68.

16. One of his first assignments in France was to run the motor pool.

17. Letter to Beatrice Patton, 23 December 1917, Blumenson, p. 502.

18. Letter to Beatrice Patton, 5 July 1918, Blumenson, p. 597. Poem "Regret," 27 June 1918, and "Bill," 30 August 1919, GSP #60, Poems.

19. Letter to Beatrice Patton, 12 October 1918, Blumenson, p. 676.

20. Lecture, "Tank Tactics," 20 November 1920, GSP #48, Military Writings, 1918.

21. Ibid.

22. Letter to Beatrice Patton, 13 April 1918, Blumenson, p. 562.

23. Letter to Beatrice Patton, 22 November 1918, Blumenson, p. 709.

24. "Tanks in Future Wars," May 1919, GSP #58, Military Writings, 1918. Published as "Tanks in Future Wars," *Infantry Journal*, 16 (May 1920), 958-62.

25. This can be seen most clearly in his poems in this period, "Defeat," 16 January 1921, "The War Horses," n.d., and "The Curse of Kant," 20 January 1921, GSP #60, Poems.

26. Patton wrote and spoke relatively little on this subject during this period, and what he did say largely repeated ideas developed between 1918 and 1920.

27. This theme was elaborated for the first time in "The Cavalry Man," 1921, GSP #49, Military Writings, 1921.

28. "Drills for Fighting," 1926, Blumenson, p. 904.

29. "The Secret of Victory."

30. The appearance of prototypes of fast tanks in the United States was the result of several developments, none of which were linked directly to any distinct theory of mechanized warfare. These schemes were initially based on an ideal medium tank capable of long range and speeds of at least 20 m.p.h. overland. Interest in the development of such a vehicle in the United States, however, flagged soon after the National Defense Act of 1920 assigned responsibility for tank development to the infantry, whose interest in armored vehicles was limited to those that could accompany and support infantry. (See George Hoffman, "The Demise of the U.S. Tank Corps and Medium Tank Development Program," *Military Affairs*, 36 [February 1973], 20-25). However, by the mid-1920s there was growing interest in the development of a cheap light tank which would use chassis and engines already in production for the civilian automotive market, thereby allowing easy and rapid mass production in the event of war. It was from these efforts, as well as those of independent inventor J. Walter Christie, that the prototypes for fast tanks appeared in 1929 (see Constance M. Green, Harry C. Thompson, Peter C. Roots, *The United States in World War II: The Ordnance Department: Planning Munitions for War* [Washington: Office of the Chief of Military History, 1955], pp. 189-98; C. C. Williams, "Mechanization and the New Era of the Armored Fighting Vehicle," *Army Ordnance*, 9 [May-June 1929], 301-07; and John Christmas, "Mechanization in Our Army Today," *Army Ordnance*, 13 [July-August 1932], 11-17). The appearance of these tanks, of course, made possible a mechanization of cavalry, attracting the interest of cavalry officers such as Adna Chaffee and Patton.

31. At this time Patton was a leading contributor to *Cavalry Journal* and a key member of an Army polo team.

32. "Armored Cars with Cavalry," *Cavalry Journal*, 33 (January 1924), 7.

33. "The 1929 Cavalry Division Maneuvers," *Cavalry Journal*, 39 (January 1930), 7-15.

34. Lecture, "Cavalry in the Next War," 4 February 1930, GSP #50, Military Writings, 1929.

35. Memorandum for the Chief of Cavalry, "Anti-Tank and Anti-Armored Car Weapons," 6 March 1930, GSP #58, World War I, Tanks 1918.

36. Ibid.

37. "Armored Cars with Cavalry," p. 186.

38. "Memorandum for the Chief of Cavalry," 20 June 1929, GSP #58, World War I, Tanks 1918. The career of J. Walter Christie and his effort to sell the Army a tank designed to run on both wheels and tracks is described in George F. Hoffman, "A Yankee Inventor and the Military Establishment: The Christie Tank Controversy," *Military Affairs*, 39 (February 1975), 12-18, and in Macksey, pp. 90-94.

39. Lecture, "Modern Cavalry," 9 January 1931, GSP #56, Military Writings, 1931.

40. Lecture, "New Developments in Cavalry," 17 December 1930, GSP #51, Military Writings, 1931.

41. Memorandum to General Henry, 11 June 1931, GSP #52, Military Writings, 1931.

42. Lecture, "Is Cavalry Obsolete?" n.d. (1931), GSP #52, Military Writings, 1931.

43. Ibid.

44. Patton first began to clarify this idea in 1921 (lecture, "German and Allied Theory of War," n.d. [1921], GSP #49, Military Writings, 1921). It became a staple in his lectures and articles until well into the 1930s.

45. This can best be seen in his poem "Mud," July 1917, GSP #60, Poems.

46. This was one of his favorite topics of conversation with French officers, many of whom agreed with him. Letter to Beatrice Patton, 30 May 1918. Blumenson, p. 584.

47. Patton's first professional writing was a one-page typescript article entitled "National Defense" written in 1910 and which argued in favor of a professional army. GSP #48, Military Writings, 1910.

48. During the war Patton developed the theory that the sudden influx of poorly trained officers and soldiers led to specialization since they had learned to do only one thing well. From this specialization flowed not only the sterile character of the war but also the claims that single weapon systems, such as the tank, could produce victory unaided. Thus, Patton had early linked mechanizationists with the mass army and its essentially civilian character. "German and Allied Theory of War," "Tactical Tendencies," 26 November 1921, GSP #49, Military Writings, 1921.

49. Letter to Dwight D. Eisenhower, 9 July 1926, Blumenson, p. 873.

50. "Is Cavalry Obsolete?"

51. Lecture, "Modern Cavalry," 9 January 1931, GSP #59, Military Writings, 1931.

52. "The Probable Characteristics of the Next War and the Organization, Tactics and Equipment Necessary to Meet Them," 29 February 1932, GSP #52, Military Writings, 1932.

53. "Is Cavalry Obsolete?"

54. Patton had advocated the almost total motorization of the cavalry supply service during this time. Memorandum for the Quartermaster General, "Value of Animals to the Military Establishment," 28 August 1930, GSP #12, Chronological File, 1930-32.

55. Memorandum, "Mechanized Units," June 1931, GSP #52, Military Writings, 1931. It is also worth noting how little influence European theorists on mechanization such as J. F. C. Fuller and Basil Liddell Hart had on American development and even on the evolution of Patton's thought. For instance, Fuller's volume, *Lectures on F. S. R. iii (Operations between Mechanized Forces)* (London: Sifton Praed, 1932), considered by many to be the best exposition of his ideas on the subject, was virtually ignored by American military journals and schools. A speculative examination of possible reasons for this go beyond the scope of this paper, but one is worth noting. European theorists were transfixed by the First World War as experienced by their own nation and developed their ideas about mechanization as a means of avoiding a repetition of that experience. Both Fuller and Liddell Hart turned to the tank and to their visions of mechanized warfare as a means of overcoming the stalemated trench warfare that much of British opinion had seen as costly, indecisive, and meaningless. The central problem for both men, and many of their followers, was breaking through an entrenched line and exploiting that breakthrough in a decisive manner. (Both men have benefitted from recent biographies centering on their ideas: Anthony J. Trythall, *"Boney" Fuller* [London: Cassell, 1977]; Brian Bond, *Liddell Hart: A Study of His Military Thought* [New Brunswick: Rutgers, 1977]. Jay Luvaas, *The Education of an Army* [Chicago: Univ. of Chicago, 1964], pp. 335-424, points out that this fixation also affected both men's visions of history.) In France, where the major lesson of the war was perceived to be the overwhelming power of the defense, mechanized warfare was largely ignored in deference to defensive systems based on the Maginot Line and artillery. Even Charles de Gaulle in his book *Vers l'armée de Metiér* (1934) emphasized the role of artillery. (See Andre

Beaufre, "Liddell Hart and the French Army," in Michael Howard, ed., *The Theory and Practice of War* (Bloomington: Indiana Univ., 1965), pp. 129-42. In Germany the principal advocate of mechanization, Heinz Guderian, was an acknowledged disciple of Liddell Hart, yet he turned to mechanization, in part, to provide the mobility necessary to overcome the disadvantage rising from Germany's central position, which many felt had left it surrounded and outnumbered in the First World War. (See Robert J. O'Neill, "Doctrine and Training in the German Army," in Howard, pp. 143-67, and Messenger, pp. 56-59.) Until the Ethiopian War, Italian armor was assigned the role of an infantry support weapon in defense of the Alpine passes threatened in the past war. (See Sweet, pp. 51-74.) American experience in the war was too brief to produce any such fixation, so that even those officers who, like Patton, generally kept up with the European military developments failed to share the concerns on which the various cases for mechanization were based. Many officers, including Patton, saw armored vehicles as necessary to military conditions peculiar only to northwest Europe, an area in which, for a long time, few Americans expected to be again involved militarily.

56. His lectures and writing on the subject during this period were limited and largely a hasty rework of earlier material.

57. Lecture, "Defense Against Mechanization," 3 March 1936, GSP #53, Military Writings, 1936.

58. Memorandum, "Current Thought on Mechanization," 15 December 1936, GSP #53, Military Writings, 1937. For a decade and a half after the end of the war, Patton argued repeatedly that no society could stand the economic strain of mechanized war. While he dropped this argument in the mid-1930s, he still argued that within a few months of the opening of a general war, all sides would exhaust their supply of armored vehicles and it would require domestic industries a year to begin an adequate resupply. Lecture, "Mechanization," 11 April 1934, GSP #52, Military Writings, 1934.

59. Lecture, "Armored Operations in Poland," 3 September 1940, GSP #12, Chronological File, 1940-41.

60. Anyone familiar with Patton's book, *War as I Knew It* (Boston: Houghton Mifflin, 1947) will realize that these traditional values also survived the Second World War intact.