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The Operational Cultures of American Ground Forces

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Over the course of the past century, the operations carried out by the ground forces of the USA have been shaped by the interplay of two very different cultures.[1] In some instances, one or the other of these two operational cultures has played the dominant role in the conception, coordination, and conduct of martial undertakings.[2] At other times, the two cultures combine to create chimeras of various kinds, enterprises in which the actions of some participants accord with one of these two cultures whilst the deeds of others reflect the prejudices, practices, predispositions, or precepts of the other.

The two competing operational cultures of American ground forces share a common origin in the work of Eben Swift. Born in 1854 at Fort Chadburne, Texas, where his father was serving as a military surgeon, Swift graduated from the United States Military Academy at West Point in 1876.[3] In the two decades of military service that followed his graduation from West Point, much of which was spent in frontier forts of the type so often seen in popular depictions of the 'Wild West', Swift devoted his leisure hours to the study of European military literature.[4] In particular, he spent a great deal of time with

[1] As used in this chapter, the term 'operations' refers to the things that a military organization does with respect to an enemy rather than the employment of formations for strategic purposes at the 'operational level of war'.

[2] The concept of 'operational culture' at the heart of this chapter should not be confused with the very different concept of the same name featured in Paula Holmes-Eber and Barak A. Salmoni, *Operational Culture for the Warfighter* (Quantico: Marine Corps University Press, 2011) or Paula Holmes-Eber, Patrice M. Scanlon, and Andrea L. Hamlen in *Applications in Operational Culture* (Quantico: Marine Corps University Press, 2009).

[3] The most complete biography in print of Eben Swift can be found in the pages of the old alumni magazine of United States Military Academy: 'Eben Swift and the Five-Paragraph Order', *Assembly* 38, 1 (1979), 9, 24, 111. For an overview of the role played by Swift at the schools at Fort Leavenworth, see Timothy Nenninger, *The Leavenworth Schools and the Old Army* (Westport: Greenwood Press, 1978), 43–48, 73.

[4] Swift was able to read both French, which had been a required subject at West Point, and Spanish, which served as a *lingua franca* in many parts of the American frontier in the late nineteenth century. For evidence of his command of these languages, see his review of three French books (only one of which had been translated into English) in *The North Carolina Historical Review* 2, 2 (April 1925): 255–259, and

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the works of Julius von Verdy du Vernois, an officer of the German Army who, in the course of writing several dozen volumes, advocated an approach to the study of the military art that he called the 'applicatory method'.[5]

In the middle years of the 1890s, whilst he was teaching at a school for junior officers at Fort Leavenworth, Kansas, Swift composed a progressive programme of professional education for the officers of the garrison of an imaginary post located on the 'borderland' of the 'most distant possession' of the USA. Published as 'The Lyceum at Fort Agawam', this ideal curriculum made exclusive use of the aforementioned 'applicatory method'. Specially, it employed one-sided map problems, both fictional and historical; two-sided map manoeuvres; and outdoor excursions during which students composed orders, sometimes written and sometimes verbal, for units imagined to be engaged in warlike activity on the countryside in question.[6]

The programme of professional education laid out in 'The Lyceum at Fort Agawam' began with a series of eight single-step map problems in which students wrote out orders for imaginary units presumed to be facing specific problems upon real pieces of ground. (Swift emphasized the commission of such orders to paper by referring to these activities as 'written exercises'.) The next eight classroom exercises in the line-up were two-sided contests in which the imaginary forces in question were depicted upon a map (or maps) by blocks cut to scale and the results of engagements were adjudicated by an umpire.[7] (Swift referred to these by two names, sometimes calling them 'map maneuvers' and sometimes using the German term '*Kriegsspiel*'.[8]) The last eight of the indoor exercises in Swift's curriculum bore some resemblance to the one-sided map problems engaged in the first part of the course. However, rather than being works of fiction designed to draw attention to

the bibliography to his lecture on 'The Military Geography of Chili', in Arthur L. Wagner et al., *Military Geography* (Fort Leavenworth: United States Infantry and Cavalry School, 1895), 66.

[5] For a brief biography of Julius von Verdy du Vernois (1832–1910), see the lengthy obituary serialized in the *Militärwochenblatt* (Numbers 130 through 134) in 1910. For an attempt to trace the deeper roots of the applicatory method, see Bruce I. Gudmundsson, 'The Education of the Enlightened Soldier', *MCU Journal* 9, 1 (Spring 2018): 33–44.

[6] Eben Swift, 'The Lyceum at Fort Agawam', *Journal of the Military Service Institution of the United States* XX, LXXXVI (March 1897): 233–277.

[7] The way Swift imagined the conduct of 'map maneuvers' in 'The Lyceum at Fort Agawam' was in keeping with his adaptation of a French translation of a book by Verdy du Vernois on the subject of wargaming. For Swift's adaptation, see Julius von Verdy du Vernois (translated by Eben Swift), *A Simplified War Game* (Kansas City: Hudson-Kimberly, 1897). For the French translation from which Swift worked, see Julius von Verdy du Vernois (translated by Matthieu Morhange), *Essai de Simplification du Jeu de Guerre* (Brussels: C. Muquardt, 1877). For the German original, see Julius von Verdy du Vernois, *Beitrag zum Kriegsspiel* (Berlin: E.S. Mittler, 1876). For the context of the innovations in wargaming introduced by Verdy du Vernois, see Werner Knoll, 'Die Entwicklung des Kriegsspiels in Deutschland bis 1945', *Militärgeschichte* XX (1981): 180–182.

[8] Swift employed the singular form of the word '*Kriegspiel*' to designate both single war games and multiple exercises of that sort. This may stem from a lack of familiarity with the plural form of the original German word ('*Kriegsspiele*'). Alternatively, this practice may reflect a desire to coin an abstract expression comparable to 'the study of military history' or 'the sham battle'.

commonplace conundrums, these one-sided map problems, which together made up what Swift called the 'study of military history', were drawn from the annals of the march on Atlanta during the last year of the American Civil War.[9]

The last phase of Swift's 'Lyceum' consisted of what he called 'war rides'. The first of these resembled a grown-up version of the children's game of 'hide-and-seek', with four teams of horsemen tracking a group attempting to evade detection.[10] Subsequent 'war rides' bore a closer resemblance to the written exercises worked out at the start of the programme, but with real ground taking the place of paper maps. As was the case with the written exercises, these latter 'war rides' combined an open-ended search for custom-tailored solutions, what might be called the military analogue of academic freedom, with an insistence that students use a rigid format for the composition of orders. (This 'invariable model', as Swift called it, limited each order to five obligatory paragraphs. The first of these described the general situation and, in particular, the activity of the enemy. The second paragraph contained a succinct statement of the mission of the unit in question. The third paragraph promulgated a plan for fulfilling that mission. The last two paragraphs dealt, respectively, with arrangements for logistics and the transmission of information.)[11]

An empathetic reading of 'The Lyceum at Fort Agawam' reveals the work of a thoughtful mind attempting to simultaneously promote both predictability in small things and liberty of action in larger matters. Indeed, a particularly perceptive reader might even conclude that the system set down by Swift used his 'invariable model' to provide a familiar framework that reduced, for both leaders and the led, the psychological price exacted by encounters with necessarily novel notions. Such subtlety, however, proved hard to transmit from one mind to another. Thus, whilst some officers embraced the custom-tailoring of solutions at the heart of Swift's system, others found comfort in the predictability of his five-paragraph format.

In the years that followed the publication of his ideal curriculum, Swift himself seems to have become fonder of the formulaic aspects of his ideal curriculum and, at the same time, less enthusiastic about opportunities it offered

[9] The method Swift called the 'study of military history' corresponds closely to the one described in Julius von Verdy du Vernois, *Kriegsgeschichtliche Studien nach der applikatorische Methode, I Heft, Taktische Details Aus der Schlacht von Custozza* (Berlin: E.S. Mittler, 1876). This work was translated into English by G. F. R. Henderson as *A Tactical Study of the Battle of Custozza* (London: Gale and Polden, 1884) and French by Léonce Grandin, as *Études d'Histoire Militaire d'après la Méthode Appliqué* (Paris: J. Dumaine, 1877).

[10] 'The Lyceum at Fort Agawam', 270–271.

[11] 'The Lyceum at Fort Agawam', 243–244.

for creative problem solving. In 'The Lyceum at Fort Agawam', for example, he had raised the possibility that an officer who had mastered the art of composing orders might dispense with the five-paragraph format. Nine years later, in a pamphlet devoted to the elaboration of his five-paragraph order, he argued that 'it is also found that officers who have once been instructed in this way will, even after long experience, closely follow the accepted model'.[12] During Swift's first tour of duty at Fort Leavenworth (1894–1897), he informed his students that, when solving map problems, 'any idea that is not manifestly wrong will usually be considered right, if it be developed in a logical way'.[13] During his second tour of duty (1904–1906), he devoted a great deal of time and trouble to both the creation of 'approved solutions' and the introduction of various measures (such as preliminary 'recitations') that predisposed students toward them.[14] 'To propose problems to a class of officers without giving information as to the character of errors committed or as to the kind of solution which is considered right, and without having come to a conclusion as to what would be a proper answer, is not a satisfactory method of instruction'.[15]

The ossification of the teaching methods used at Fort Leavenworth took place at a time when Verdy du Vernois, the author who had introduced Swift to the applicatory method had come to reject even the modest relics of formal frameworks that could be found in his earlier writings.[16] This change reflected a growing tendency within the German Army of the last decade of the nineteenth century to condemn 'schemes', 'patent solutions', and any other practices that served to limit the freedom of officers to address the peculiarities of the situations that they encountered.[17] Paradoxically, as American officers following the trail blazed by Swift translated newer German works about the applicatory method, they made arguments in favour of this philosophy available to their colleagues.[18] In the case of a collection of map problems

[12] Eben Swift, *Field Orders, Messages, and Reports* (Washington, DC: War Department, 1906), 15.

[13] For a detailed description of how these methods were used, see Arthur L. Wagner, 'Department of Military Art', *Appendix B to H. S. Hawkins, Annual Report, US Infantry and Cavalry School*, 1 August 1896, 1–23. For the quotation, see page 19 of the same document.

[14] Used extensively at West Point as well as in many civilian schools of the day, a 'recitation' was a short speech, made without notes, in which a student provided a précis of a reading assignment.

[15] Eben Swift, 'Department of Military Art, Infantry and Cavalry School', Appendix B to J. F. Bell, *Annual Report of the Commandant of the Infantry and Cavalry School and Staff College, for the School Year Ending*, 31 August 1905, 6–7.

[16] For examples of this trend away from fixed formats, compare the editions of Julius von Verdy du Vernois, *Studien über Felddienst* published in 1887 and 1895 with those published in 1900 and 1908.

[17] For more on the movement away from forms and formats within the German Army in the late nineteenth and early twentieth centuries, see, among many others, Dirk W. Oetting, *Auftragstaktik: Geschichte und Gegenwart einer Führungs-konception* (Frankfurt am Main: Report Verlag, 1993).

[18] During his second tour of duty at Fort Leavenworth, Swift seems to have been more interested in the earlier works of Verdy du Vernois than the more recent products of that author's pen. Thus, when he found

translated for use at Fort Leavenworth, all illustrative directives were cast in the mould of the five-paragraph order.[19] Nonetheless, the translation retained a passage that reminded readers that the form of orders was secondary to their essence and that the sample solutions provided were 'aids to the memory, nothing more'.[20] In the instance of an official booklet issued to students at Fort Leavenworth, more than a third of the text consisted of lengthy quotations from the works of German officers who had advocated the custom tailoring of solutions to tactical problems. Indeed, of the fifty-one paragraphs borrowed from other publications, only one, which had been provided by an officer of the US Navy, had been written by someone other than a contemporary German foe of form and format.[21]

The new German military literature found some friends at Fort Leavenworth, the most senior whom was John F. Morrison. Fresh from observing the battles of the Russo-Japanese War (1904–1905), Morrison served for six continuous years (1906–1912) at the Fort Leavenworth schools, first as an instructor and then as administrator. Thanks to the habit, recommended by Verdy du Vernois, of working through map exercises of his own design, Morrison arrived at Fort Leavenworth with an uncommonly open-minded attitude toward the applicatory method. The chief task of the student engaging in an applicatory exercise, he believed, began with the discovery of the essence of the problem at hand. Once the student figured this out, the resulting solution would be so robust that minor mistakes in the realm of technique would have little effect upon the outcome.[22] Notwithstanding his long tenure at Fort Leavenworth, Morrison managed to convert few of his colleagues to his philosophy. What little progress he may have made, moreover, was quickly undone by the entry of the USA into the First World War.

time to adapt a second translation of a book by his favourite German author, Swift chose to Americanize a 1877 French translation of a slim volume that first emerged from the press in 1876. See Julius von Verdy du Vernois (translated by Eben Swift), *A Tactical Ride* (Fort Leavenworth: Staff College Press, 1906); Julius von Verdy du Vernois (translated by F.G.A. Peloux), *Un Voyage-Manoeuvre de Cavalerie* (Paris: Berger-Levrault, 1877); and Julius von Verdy du Vernois, *Beitrag zu den Kavallerie-Übungs-Reisen* (Berlin: E.S. Mittler, 1876).

[19] J. Franklin Bell, *Annual Report of the Commandant of the US Infantry and Cavalry School, US Signal School, and Staff College, for the School Year Ending,* 31 August 1906, 17.

[20] Otto Griepenkerl (translated by C. H. Barth), *Letters on Applied Tactics* (Kansas City: Franklin Hudson, 1908), 5.

[21] Harold B. Fiske, *Some Notes on the Solution of Tactical Problems* (Fort Leavenworth: Press of the Army Service Schools, 1916).

[22] For a lively description of the way that Morrison taught, see George C. Marshall, 'Letter to Colonel Bernhard Lentz, 2 October 1935', reproduced in Larry I. Bland and Sharon Ritenour Stevens, *The Papers of George Catlett Marshall, Volume 1, The Soldierly Spirit, December 1880–June 1939* (Baltimore and London: The Johns Hopkins University Press, 1981), 45–47. For examples of Morrison's problems, introduced with an explanation of his approach to the applicatory method, see John F. Morrison, *Seventy Problems* (Fort Leavenworth: US Cavalry Association, 1914).

The wartime fashion for branding all things German as inherently anti-American provided the partisans of form, format, and formula within the Army with a rhetorical advantage they had previously lacked.[23] At the same time, the most celebrated of America's alliances provided the champions of mechanical methods with a fresh source of inspiration, literature, and relationships. Moreover, whilst the rejection of recently imported German materials lasted until well after the end of the war, the explicit embrace of French manuals, methods, and models continued for more than two decades.[24]

Of the many items that the US Army borrowed from its French counterpart during the First World War, the most influential was the concept of 'doctrine'.[25] Conspicuously absent from American military culture of the years before 1917, this concept called for the development of a detailed description of the way that the units and formations fielded by an army ought to act.[26] As the sharing of such a script necessarily required a multitude of mutually compatible manuals, the adoption of this concept resulted in both the creation of a presumably consistent collection of official publications and the rejection of a heterogeneous body of texts read before the war.[27] Similarly, as written instructions rarely suffice to enforce conformity, the introduction of the concept of doctrine correlated with the establishment of a number of new schools for junior officers and the recasting of the schools at Fort Leavenworth as

[23] For a vivid illustration of the decline in dependence upon German ideas and examples on the eve of the USA's entry into the First World War, compare the first lecture, delivered on 29 January 1917, with the last lecture, given on 5 March 1917, of the collection published as *Notes on Infantry, Cavalry, and Field Artillery* (Washington: Government Printing Office, 1917).

[24] For an account of the influence of the First World War on the schools at Fort Leavenworth that makes no mention of the role played by French models, see Peter J. Schifferle, *America's School for War: Fort Leavenworth, Officer Education, and Victory in World War II* (Lawrence: University Press of Kansas, 2010), 9–17.

[25] Prior to 1918, the word 'doctrine' rarely appeared in American military literature. When it did, it usually referred to a specific teaching about a particular phenomenon, the most frequently mentioned of which was the 'Monroe doctrine'. For a notable exception, which described doctrine as a 'never-ending progressive' process utilizing 'the collective mind of the service', see Dudley W. Knox, 'The Role of Doctrine in Naval Warfare', *Journal of the Military Service Institution of the United States* LVII (July–September 1915), 70–90.

[26] For an early description of the new concept of doctrine, see Hugh A. Drum, 'Annual Report, 1919–1920, School of the Line', reproduced in Charles H. Muir, *Annual Report, The General Service Schools* (Fort Leavenworth: The General Service Schools Press, 1920), 17–24.

[27] In his report for the academic year that ended in the summer of 1920, the assistant commandant of the schools at Fort Leavenworth noted that 'none of the previous text-books could be used and new ones had to be written as they were required'. However, in an equally official document covering the same period, the director of one of the component schools, who was an otherwise enthusiastic proponent of the new concept of doctrine, reported the teaching of 'the tactical principles and methods enunciated in our FSR [Field Service Regulations], DR [Drill Regulations], Griepenkerl, Buddeke, von Alten, and [Morrison] *Seventy Problems*'. Leroy Eltinge, 'Annual Report, 1919–1920, Assistant Commandant', and Drum, 'Annual Report, 1919–1920, School of the Line', reproduced in Charles H. Muir, *Annual Report, The General Service Schools* (Fort Leavenworth: The General Service Schools Press, 1920), 7 and 21.

institutions for the teaching of doctrine related to divisions, army corps, and armies to mid-career professionals.[28]

The doctrine enthusiasts in the post-war US Army borrowed many elements from the French phenomenon that inspired their enterprise.[29] Thus, for example, they adopted the French method, codified in the last year of the First World War, of organizing the executive staffs of formations into four sections, as well as techniques for the organization and employment of field artillery, light tanks, and infantry heavy weapons. At the same time, they took pains to explain that the edifice they were building both reflected the peculiarities of American society and suited the needs of the rapidly raised armies the USA was likely to mobilize in the future.[30] '… American traits and characteristics', wrote one of the leaders of the doctrine movement, 'are too distinctive, too enduring, too decisive and too valuable to be sacrificed or to be subordinated to the teachings and methods of races not so blessed'.[31]

Notwithstanding the great pains taken to create a doctrine that was both national and prescriptive, many American military officers continued to display interest in, and, indeed, enthusiasm for, the German tradition of *ad hoc* problem solving. Thus, in 1923, a new edition of the senior field manual of the US Army, the *Field Service Regulations*, began with an introduction that included obvious, but uncredited, borrowings from its German counterpart. These passages stressed the uselessness of 'set rules', the occasional need to depart from prescribed methods, the importance of allowing subordinates 'a certain independence in the execution of tasks', and the importance of initiative and the seizure of opportunities, even at the cost of 'an error in the choice of means'.[32] Similarly, the desire to replace works of German origin

[28] For the change in the mission of the schools at Fort Leavenworth, see William K. Naylor, 'Annual Report, 1919–1920, General Staff School', reproduced in Charles H. Muir, *Annual Report, The General Service Schools* (Fort Leavenworth: The General Service Schools Press, 1920): 14. For a list of the new schools created in the year following the end of the First World War, see Peyton C. March, *Report of the Chief of Staff, United States Army, to the Secretary of War, 1920* (Washington, DC: Government Printing Office, 1920), 44–45.

[29] For a brief overview of the development of the French model of detailed doctrine as it applied to infantry units, see P.A. Cour, 'L'Évolution des Doctrines et Reglements Avant la Guerre et la Valeur Technique de Notre Infanterie', Revue Militaire Générale XVIII, 3 and 4 (March and April 1921). For a much longer treatment of the evolution of French doctrine as a whole, see Lucius (pseudonym), 'La Refonte des Règlements et Notre Doctrine de Guerre', Revue Militaire Générale, serialized in Volumes XVII through XX (1920 through 1923).

[30] For an early manifesto of the partisans of an 'American doctrine', see the pamphlet issued to students at the start of the 1919–1920 school year at Fort Leavenworth: *Explanation of Course and Other Pertinent Comments, 12 August 1919* (Fort Leavenworth: The Army Service Schools, 1919).

[31] Hugh A. Drum, 'Annual Report for the School Year 1921–1922 (Assistant Commandant)', reproduced in Hanson E. Ely, *Annual Report, The General Service Schools* (Fort Leavenworth: The General Service Schools Press, 1922), 24–25.

[32] Compare, for example, paragraph 38 of Felddienst Ordnung (Berlin: E. S. Mittler, 1908), 16 with the sixth paragraph of the introduction to *Field Service Regulations, United States Army, 1923* (Washington, DC: Government Printing Office, 1924), III.

with manuals written by, and for, Americans failed to prevent the translation of contemporary German military writings, whether by officers studying in various schools, officers detailed to such duty, or, in a few instances, by civilians hired for that purpose.[33]

In the Army school system, the proliferation of doctrinal manuals both facilitated the composition of approved solutions and enhanced the authority of such documents. Thus, the student who chose to solve a map problem in a way that differed from the method previously provided him found himself at odds, not merely with his instructor, but with a formulation of doctrine that had been blessed by the highest authority. This, for many, altered the meaning ascribed to the term 'applicatory method'. Before the First World War, English-speaking students of the German Army described the applicatory methods as the application of 'knowledge' or 'theory' to 'concrete cases'.[34] After the First World War, many American soldiers came to believe that the applicatory method was a matter of applying doctrinal templates to specific situations.[35]

In the schools at Fort Leavenworth, and the institutions that imitated them, instructors quickly adopted the custom of marking solutions as if they were grammar school compositions, with points deducted for each deviation, whether of style or of substance, from the approved solution. This proliferation of arbitrary standards led some students to submit solutions that had little to do with genuine beliefs and others to embrace fatalism of a kind that discouraged serious study. ('Reading an approved solution', said a character in a musical satire written by officers at Fort Leavenworth, 'is like playing bridge with your wife. Everything you did was wrong'.)[36] At the same time, it imbued approved solutions, and the doctrinal manuals upon which they were based, with an unwarranted air of infallibility. ('There is always the tendency to look at military art as an exact science', wrote the aforementioned satirist in a more serious venue, 'for it facilitates marking'.[37])

The Rococo quality of approved solutions also owed much to the definitive experience of most of the Americans who fought in France during the First World War, the Meuse-Argonne campaign of the last 47 days of that conflict.

[33] Hugh A. Drum, 'Annual Report for the School Year 1920–1921 (Commandant)', reproduced in Hugh A. Drum, *Annual Report, The General Service Schools* (Fort Leavenworth: The General Service Schools Press, 1921), 9.

[34] See, among others, Spenser Wilkinson, *The Brain of an Army* (London: A. Constable, 1895): 160 and 'The Lyceum at Fort Agawam', 239.

[35] See, for an example of this change in attitude, the definition of the 'applicatory system' provided in Herbert J. Brees, *Methods of Training (Provisional)* (Fort Leavenworth: General Service Schools Press, 1925), 6.

[36] Bernard Lentz, *At Kickapoo* (Fort Leavenworth: Privately Published, 1922), 8.

[37] Bernard Lentz, 'The Applicatory Method', *The Infantry Journal* XX, 6 (June, 1922): 606.

Carried out by the largest army yet fielded by the USA, this operation took place at a time when the enemy was rarely able to offer much in the way of sustained resistance. As a result, there were many occasions when it appeared that traffic jams, straggling, and the 'stumblings, blunderings, failures, appeals for help, and hopeless confusion' of higher headquarters did more to hinder forward movement than anything that the Germans did.[38] Thus, it was not surprising that many veterans of the American Expeditionary Force came to the conclusion that success in war was largely a matter of attending to the details of internal organization.

In August 1920, the US Marine Corps founded the Field Officers' School, an institution for the education of mid-career officers that borrowed much from the recently reconstituted schools at Fort Leavenworth. This similarity was, to a large extent, a matter of convenience. Borrowing problems, publications, and policies from comparable courses preserved instructors at the schools for Marine Officers from the time, trouble, and expense involved in *ex nihilo* creation.[39] For some Marines, however, the texts, techniques, and teaching methods developed by the Army, were not only the products of the 'prolonged and exhaustive study of the best military minds in the country', but would also prepare Marines to work with, and for, their sister service counterparts.[40] At the same time, the Marines serving at the new school, which was located at Quantico, Virginia, made allowance for the sort of work the Marine Corps was likely to be called upon to do in the near future, and, indeed, in places like Haiti and Santo Domingo, was already doing. Such missions required that the school employ 'problems requiring independent thought and decision' in order to 'develop initiative, correct thinking and ready decision on the part of subordinate officers'.[41]

It was not until the academic year that began in 1926 that the Field Officers' School devoted a substantial part of its curriculum to the task of preparing Marines to lead units doing things other than operating as part of Army formations. In that year, it introduced a five-week course in 'overseas operations'

[38] For a dispassionate catalogue of the self-inflicted difficulties suffered in the first few days of the Meuse-Argonne campaign of 1918, see General Headquarters, American Expeditionary Force, *Notes on Recent Operations, No. 3* (Chaumont: American Expeditionary Force, 1918). The colourful characterization of the deeds of higher headquarters comes from George C. Marshall, 'From the Chief's Office', *Infantry Journal* (March–April 1940): 185–193, quoted in Paul F. Gorman, *The Secret of Future Victories* (Fort Leavenworth: USACGC Press, 1994), 36. For more on the same subject, see Schifferle, *America's School for War*, 14–17.

[39] For an account of the first ten years of the Marine Corps Schools, see Randolph C. Berkeley, 'The Marine Corps Schools', *The Marine Corps Gazette*, May, 1931, 14–15.

[40] Robert Dunlap, 'Recommendations Based on Report of Critique on Joint Army-Navy Problem Number 3, by Officers of Marine Corps Schools, June 1 to 5, 1925', typescript found in Folder 756, Historical Amphibious File, Marine Corps Archives.

[41] 'Professional Notes', *The Marine Corps Gazette*, December, 1920, 409–410.

that dealt with both the design of the defences for improvised naval bases and the landing of Marines on hostile shores.[42] Rather than using the sort of minutely-marked problems that were then being used to teach the portion of the programme of instruction imported from Fort Leavenworth, this 'course within a course' made a much greater use of less formal problems that were discussed in small 'conference groups'.[43]

In December of 1929, the *Marine Corps Gazette* published a remarkable article on the subject of military education. Written by James Carson Breckinridge, 'Some Thoughts on Service Schools' argued for the replacement of arbitrary methods of teaching with 'open forums for the discussion and dissection of special episodes'. These, he argued, would result in the 'habit of thinking and analyzing (but not of fulfilling a ritual) that will be suitable to every situation encountered in military life'.[44] In other words, Breckinridge was calling for a revitalization of the pre-war applicatory method, one that involved both a return to the open-ended spirit of the original technique and its extension, beyond the realm of the tactics of conventional warfare on land, to all of the problems that a Marine might encounter in the course of his varied service.

Tragically, Breckinridge does not seem to have been aware of the existence of open-ended alternatives, whether German or American, of the ossified version of the applicatory method borrowed from Fort Leavenworth.[45] Rather, he recommended that Marine Corps schools for officers draw upon the spirit, if not the precise teaching methods, of the Experimental College at the University of Wisconsin, thereby committing the fatal rhetorical mistake of suggesting that Marines emulate an institution that was best known for the scruffy appearance, poor manners, and rowdy behaviour of its students.[46] Thus, although he served as commandant of the Marine Corps Schools, and thus the direct superior of the director of the Field Officers' School, for a combined total of more than four years, he proved unable to implement a thorough-going reform of the teaching methods used there.

[42] For the formation of this course on 'overseas operations', see Dion Williams, 'The Education of a Marine Officer', *Marine Corps Gazette,* August 1933, 19.

[43] For more on the evolution of the curriculum at the Field Officers School, see Bruce I. Gudmundsson, 'Ambiguous Application: The Study of Amphibious Warfare at the Marine Corps Schools, 1920–1933', in *On Contested Shores*, edited by Timothy Heck and B.A. Friedman (Quantico: MCU Press, 2018), 174–179.

[44] J. C. Breckinridge, 'Some Thoughts on Service Schools', *Marine Corps Gazette,* December 1929, 230–238.

[45] See, for the assumptions about the applicatory method held by Breckinridge, 'Tactical Problems', an unpublished essay found in the papers of James Carson Breckinridge (Box 19, Folder 4) on file at the Marine Corps Archives.

[46] Alexander Meiklejohn, *The Experimental College* (New York: Harper and Brothers, 1932) and Erin Abler, 'The Experimental College: Remembering Alexander Meiklejohn and an Era of Ideas', *Archive: A Journal of Undergraduate History*, 5 (2002): 50–75.

Nonetheless, Breckinridge did manage, in an indirect way, to reduce the influence of the Fort Leavenworth version of the applicatory method upon the operational culture of the Marine Corps. Thanks to his emphasis on the study of naval matters, landing operations, and small wars, many classes that had been borrowed from the Army were displaced by work on subjects for which neither approved solutions nor doctrinal manuals had been written.[47]

The pathos of the failure of Breckinridge to implement his vision is amplified by the proximity of resources for the engagement of the 'special episodes' he seems to have had in mind. With respect to materials, the book used by Marines at Quantico in the early 1930s to study the most successful amphibious operation of the First World War, *The Army and Navy during the Conquest of the Baltic Islands*, had been written in such a way that each chapter ended at the point where a leader made an important decision. In other words, it was written as a series of 'special episodes'.[48] With respect to method, Breckinridge seems to have entirely missed the reform of the applicatory method that had been taking place at the Army Infantry School at Fort Benning, Georgia.

Between 1927 and 1932, George C. Marshall, who had studied under John F. Morrison at Fort Leavenworth, wrought a series of remarkable changes at the Infantry School.[49] Like Morrison, Marshall was convinced that the 'bunk, complication, and ponderosities' that played such a large role in instruction at Fort Leavenworth needed to be replaced by teaching that helped students to develop the ability to uncover the 'essentials' of a given situation.[50] In contrast to Morrison, Marshall took great pains to recruit a group of talented instructors who were capable, not only of employing his approach, but of sustaining it after his inevitable departure.[51] Thus, throughout the

[47] Breckinridge served two tours as commandant of the Marine Corps Schools: July 1928 through December 1929 and April 1932 through January 1935. For details of his accomplishments during his second period of service, see Gudmundsson, 'Ambiguous Application', 181–184.

[48] For the original work, see Erich von Tschischwitz, *Armee und Marine bei der Eroberung der Baltischen Inseln im Oktober 1917* (Berlin: Eisenschmidt, 1931). For the translation by an officer of the US Army, see Erich von Tschischwitz (translated by Henry Hossfeld), *The Army and Navy during the Conquest of the Baltic Islands* (Fort Leavenworth: Command and General Staff School Press, 1933). For the translation by an officer of the Marine Corps, *s*ee Erich von Tschischwitz (translated by Samuel Cumming) Translation of *Army [Armee] und Marine bei der Eroberung der Baltischen Inseln im Oktober 1917*, (typescript on file at the Library of the Marine Corps, Quantico).

[49] For a short and sympathetic account of Marshall's military service, see Larry I. Bland, 'George C. Marshall and the Education of Army Leaders', *Military Review* 68 (October 1988): 27–37.

[50] For a description of Marshall's reforms, see the letter he wrote to Stuart Heinzelman on 4 December 1933 in *The Papers of George Catlett Marshall: 'The Soldierly Spirit', December 1880–June 1939 (Volume 1)*, edited by Larry I. Bland and Sharon R. Ritenour (Baltimore and London: The Johns Hopkins University Press, 1981), 409–413.

[51] For an account of the experience of an instructor at the Infantry School during Marshall's tenure there, see Leslie Anders, *Gentle Knight: The Life and Times of Edwin Forrest Harding*, (Kent, OH: Kent State University Press, 1985), 118–134.

fourth decade of the twentieth century, the Infantry School provided the Army with an alternative to what Marshall called the 'scholasticism' of Fort Leavenworth.[52]

In the course of transplanting the mindset of Morrison to its new home, Marshall and his collaborators made use of teaching methods from 'The Lyceum of Agawam' that had fallen by the wayside over the course of the past three decades.[53] The best documented of these were the 'historical map problems' that placed students in the role of a commander who, at some point in the past, found himself faced with a mission to fulfil, an obstacle to overcome, or a dilemma to resolve. As students could compare their solutions to those made in real life by the historical decision maker, historical map problems allowed instructors to dispense with approved solutions. (Indeed, they served to remind students that 'the schematic solution will rarely fit a definite case'.[54]) Better yet, historical map problems allowed students to see the real-world results of a given decision and thus reflect upon the possible impact of the courses of action that they had proposed. Best of all, problems based on real events invariably contained elements of 'friction', whether in the form of unfavourable weather, casualties, shortages, poor intelligence, or badly composed orders, that rarely, if ever, appeared in exercises based upon imaginary scenarios.[55]

Between 1931 and 1939, historical map problems were a regular feature in the *Infantry School Mailing List*. (Not to be confused with the *Infantry Journal*, which was published by the Infantry Association, the *Mailing List* was the official journal of the Infantry School and, as such, was supported by public funds.) In the same period, the Infantry School also published short accounts of tactical engagements that could easily be converted into historical map problems. (Some of these were published in the *Mailing List*, others in the form of a book called *Infantry in Battle*.) Thanks, in part, to these methods of dissemination, as well as the efforts of officers who had served at the Infantry School, historical map problems found their way into many of the infantry units of the Army and Marine Corps.[56] There were even a few instances where

[52] For a highly sympathetic account of the reforms wrought by Marshall at the Infantry School, see Jörg Muth, *Command Culture: Officer Education in the US Army and German Armed Forces, 1901–1940 and the Consequences for World War II* (Denton: University of North Texas Press, 2011), 137–147.

[53] 'Editorial Note on Infantry School Teaching, 1927–1932', *The Papers of George Catlett Marshall, Volume 1*, 319–321.

[54] 'Infantry Problems', *The Infantry School Mailing List* 2 (1930–1931), 41.

[55] Many examples of historical map problems used at Fort Benning can be found in the volumes of *The Infantry School Mailing List* published between 1931 and 1939.

[56] For an example of a historical map problem from the Infantry School that was made available to Marines, see 'A Skirmish in Nicaragua', *The Leatherneck,* November 1938, 7–8 and 60.

instructors at Fort Leavenworth used the technique.[57] By the end of the 1930s, however, as the officers trained by Marshall and his disciples left Fort Benning, the popularity of historical map problems had waned. Thus, in 1939, the anonymous author of the last historical map problem to appear in the pages of the *Mailing List*, found it necessary to begin his article with an apology for the method he was using.[58]

Whilst the old applicatory method enjoyed its brief renaissance at Fort Benning, the formalism that had taken root at the start of the twentieth century, and blossomed soon after the end of First World War, continued to dominate instruction at Fort Leavenworth.[59] Thus, during the decade leading up the start of the Second World War, the Army possessed two very different operational cultures, each of which had its own champions, its own literature, and its own traditions. Marvellous to say, each of those cultures assumed that the chief task of the peacetime Army was to set the stage for the mobilization of a much larger force of the type raised in the First World War. However, whilst Marshall argued that wartime citizen-soldiers were best led by officers who knew how to quickly devise simple solutions to a wide variety of problems, the champions of the approach developed at Fort Leavenworth believed that hastily-trained fighting men needed to be provided with written instructions drawn up at leisure, both in the form of detailed doctrinal manuals and finely-formatted field orders.[60]

Throughout the interwar period, the foreign military organization of greatest interest to officers of the ground forces of the USA was the Army of the French Republic. Nurtured by the attendance of American officers at French military schools and the translation of French manuals, this relationship sometimes took the form of attempts at unequivocal imitation.[61] (This was particularly true in the case of the field artillery of the US Army, which was both armed with weapons of French design and enamoured of French methods.)[62] As a rule, however, the chief product of this relationship

[57] Arthur R. Walk, 'A Critical Analysis of the Military History Course at the Command and General Staff School during the Years 1931–1933, with Some Comparisons and Suggested Changes' (Student Paper, Command and General Staff School, Fort Leavenworth, 1933).

[58] Anonymous, 'The Battle at Rocourt', *The Infantry School Mailing List* XVII (January 1939), 1.

[59] For a detailed description of the teaching methods used at Fort Leavenworth between 1934 and 1936, see J. P. Cromwell, 'Are the Methods of Instruction Used at this School Practical and Modern?' (Student Paper, Command and General Staff School, Fort Leavenworth, 1936).

[60] For a detailed account, rich in anecdote, of instruction at the Fort Leavenworth schools in the 1930s, see Muth, *Command Culture*, 115–137.

[61] For the controversy over the American adoption of what was, to a large extent, a direct translation of its French counterpart, see William Odom, *After the Trenches: The Transformation of Army Doctrine, 1918–1939* (College Station: Texas A&M University Press, 1999), 118–131.

[62] Bruce I. Gudmundsson, *On Artillery* (Westport: Praeger, 1993), 109–110.

seems to have been reassurance. That is, the existence of the French Army as the paragon of a doctrinaire military organization provided psychological comfort to American devotés of a similar operational culture.

As might be imagined, the fall of France in June of 1940 put an immediate end to any and all American calls for the adoption of artefacts of the French military establishment. (In the relatively rare instances where such imitation took place, such as the original design for tank destroyer units, the American officers involved refrained from mentioning the provenance of the models in question.)[63] At the same time, there was no attempt to purge American military culture of features that had been borrowed from its French counterpart during the First World War. If anything, the rapid expansion of both the Army and the Marine Corps in preparation for the entry of the USA into the Second World War buttressed demand for a system that provided each soldier, from the recently drafted private through to the recently commissioned junior officer, with dependable directions to follow.

In the Marine Corps, the demand for doctrine was tempered by the possibility that, rather than taking part in the Second World War, the USA would find itself faced with a long cold war against Germany or Japan. In such a scenario, Marines might well find themselves returning to the Caribbean, there to fight 'small wars' against the proxies of a power intent upon control of the approaches to the Panama Canal. This possibility led to the republication, in the form of a single book, of pamphlets written by veterans of Marine operations in Haiti, Santo Domingo, and Nicaragua in the years between 1912 and 1934. The resulting *Small Wars Manual*, whilst containing some of the sort of prescriptions that filled the pages of conventional doctrinal manuals, placed a great deal of emphasis on the custom-tailoring of solutions, not merely to specific military situations, but to the political problems that were invariably intertwined with them.[64]

In the Army, the power of doctrine had to contend with the influence of the many disciples that Marshall had made at the Infantry School as well as with Marshall himself, who had become chief of staff of the US Army on 1 September 1939, the very day that Germany had begun its invasion of Poland. In the realm of personnel, Marshall enjoyed an enormous degree of freedom when it came to the selection of leaders. In the realm of policy, he was able to

[63] For the French original, see Éric Denis et François Vauvillon, 'Le Chasseur de Chars Laffly W 15 TTC et les Batteries Anti-Chars Automotrices', *Histoire de Guerre, Blindés et Matériel* 85 (October, November, December 2008): 7–21. For the American copy, see Christopher Gabel, *Seek, Strike, and Destroy, US Tank Destroyer Doctrine in World War II* (Fort Leavenworth: Combat Studies Institute, 1985), 20–21.

[64] *Small Wars Manual*, Headquarters, US Marine Corps (Washington, DC: Government Printing Office, 1940).

encourage large-scale free-play exercises in which leaders who were fond of lengthy orders found themselves at a great disadvantage.[65]

In both the Army and the Marine Corps, the avatars of the approved solution found themselves at odds with a third aspect of operational culture, that of the officer who had studied tactics on his own time. A notable example of the benefits of this practice is provided by John S. Wood, who used the leisure afforded to him by nearly 10 years of service as a professor of military science at civilian schools to pursue a programme of self-education that challenged the approach taught at both the Staff College at Fort Leavenworth and its French equivalent, the *École Supérieure de Guerre*.[66] As was the case with his fellow autodidact (and friend) George S. Patton, the synthesis that resulted from this clash of thesis and anti-thesis bore a closer resemblance to the teachings of the Infantry School of the 1930s[67] than those of the schools that these officers had actually attended.

In the course of American participation in the Second World War, the existence of two separate operational cultures often resulted in conflict between commanders. A particularly stark incident of this sort took place during the battle for Saipan in the summer of 1944.[68] Whilst often presented as a product of inter-service rivalry, this 'battle of the Smiths' had more to do with the way each of the parties had studied the art of war during the long years of peace. Holland M. Smith, a Marine officer who commanded all of the American ground troops in that battle, had formed a low opinion of the instruction he had received at both the Naval War College and the Marine Corps Schools. (The instructors at the latter institution, he wrote, 'could not handle situations which refused to square with theory'.)[69] Thus, when Ralph C. Smith, a former instructor at Fort Leavenworth, persisted in employing his division in the methodical manner celebrated in approved solutions, the senior Smith relieved the junior Smith of his command.[70]

The Second World War presented American officers of both operational cultures with a large number of novelties. These included a myriad of new

[65] For a detailed description of these large-scale exercises, see Christopher R. Gabel, *US Army GHQ Maneuvers of 1941* (Fort Leavenworth: Combat Studies Institute, 1991).

[66] For a detailed report, by an American officer, of the programme of instruction at the French staff college, see Leon W. Hoyt, 'The École Supérieure de Guerre', *Marine Corps Gazette*, December, 1926, 219–225.

[67] Hanson W. Baldwin, *Tiger Jack: Major General John S. Wood* (Fort Collins: Old Army Press, 1979), 77–79.

[68] Extensive accounts of the 'battle of the Smiths' can be found in Harry A. Gailey, *Howlin' Mad versus the Army* (Novato: Presidio Press, 1986) and Norman Cooper, *Fighting General* (Quantico: Marine Corps Association, 1987).

[69] Holland M. Smith, *Coral and Brass* (New York: Charles Scribner's Sons, 1949), 57.

[70] Eric Pace, 'Gen. Ralph C. Smith, Honored for War Bravery, Dies at 104', New York Times, 26 January 1998, A–17.

weapons, new means of transport, and new realms of conflict. For those dependent upon doctrine and the approved solution, the integration of each of these innovations required a formal process of study, composition, approval, and promulgation. For those who celebrated the uniqueness of each situation, however, new devices, new modes of operation, and new spheres of struggle differed little from the specific incarnations of the familiar factors found in each problem solved in the course of service, schooling, or self-study. Thus, an artillery officer like John S. Wood or an engineer like Bruce C. Clark proved as capable of mastering the art of handling all-arms mechanized formations as an experienced tank officer like George S. Patton. At the same time, the doctrinaire commanding general of the American Tenth Army, Simon B. Buckner, Jr, proved unable to make decisive use of the powerful collection of tanks and other armoured vehicles at his disposal on the island of Okinawa.[71] (A distinguished graduate of the senior of the two schools then at Fort Leavenworth, Buckner had also taught at that institution for three years.)[72]

During the Second World War, the proliferation of new phenomena of importance to military leaders led American military schools to make extensive use of films, slide shows, demonstrations, and lectures. At the same time, a shortage of instructors resulted in the use of the same tools to cover many subjects previously taught by means of the applicatory method.[73] In order to judge the effectiveness of these passive forms of instruction, the schools made extensive use of written examination, many of which were developed with the help of civilians trained in the academic field of education. At the Infantry School, there were so many of these that the teaching staff resorted to the use of machine-graded multiple-choice 'bubble tests' of a type that would become familiar to many American students, both military and civilian, in the second half of the twentieth century.[74]

The combination of presentation and examination adopted by American military schools during the Second World War shared the same assumptions about military operations as the interwar combination of doctrine and the

[71] For the overall approach employed by Buckner on Okinawa, see Nicholas Evan Sarantakes, ed., *Seven Stars: The Okinawa Battle Diaries of Simon Bolivar Buckner, Jr. and Joseph Stilwel* l (College Station: Texas A&M Press, 2004), particularly pages 30 and 51. For a critique of the handling of American armour in the battle for Okinawa, see Bruce I. Gudmundsson, 'Okinawa', in *No End Save Victory*, edited by Robert Cowley (New York: G.P. Putnam's Sons, 2001), 638.

[72] For Buckner's time at Fort Leavenworth, see the annual reports for the General Service Schools for the academic years ending in 1925 through 1928.

[73] For a characterization of the frequently theatrical lectures that replaced interactive exercises at Fort Leavenworth, see Michael D. Stewart, *Raising a Pragmatic Army: Officer Education at the US Army Command and General Staff College, 1946–1986* (University of Kansas, Doctoral Thesis, 2010), 34.

[74] Ronald R. Palmer, Bell I. Wiley, and William R. Keast, *The Procurement and Training of Ground Combat Troops* (Washington, DC: Center of Military History, 1991), 294.

approved solution. In both approaches, the definitive task of military education was the transfer of the martial analogue of a script for a film or a play, a set of instructions that, with a minimum of adjustment and improvisation, would provide the student with everything he needed to know to fulfil his assigned role on active service. Likewise, both systems equated mastery of this script with the ability to manipulate its most marginal aspects, whether those were the finer points of formatting or distinctions between arbitrary categories.

The chief difference between the doctrinaire curricula of the interwar period and its Cold War counterpart lay in the speed with which the military schools changed the material they presented. Before the Second World War, the nuts-and-bolts of American ground operations, whether physical or conceptual, had remained essentially the same for twenty years. ('From 1923 through 1944', explained one senior American general, 'the fundamentals of combat at division level … did not change significantly'.)[75] After the Second World War, the Army acquired new equipment, undertook new missions, and adjusted to tectonic shifts in the strategic environment with such rapidity that doctrinal manuals, and the lessons based upon them, quickly became obsolete. Thus, in 1957, when Army Chief of Staff Maxwell Taylor told the graduating class of the Command and General Staff College, 'the Army is burning its old military textbooks, to clear away the old and make way for the new' he was telling them nothing that they did not already know.[76]

Over the course of the three decades that followed the end of the Second World War, openly radical transformations in the realm of Army doctrine alternated with self-consciously conservative 'retromorphoses'.[77] The first of the futuristic transformations was based on the short-lived presumption that, as the atomic bomb had created an era of 'push-button warfare', ground forces would serve chiefly as constabulary organizations, concerned less with fighting other armies than with occupation, administration, and police work.[78] This 'constabulary era' ended sharply in June of 1950 when Communist ground forces of an entirely conventional type invaded South Korea. The resulting return to traditional ways of doing business lasted for seven years

[75] James S. Wheeler, *Jacob L. Devers, A General's Life* (Lexington: University Press of Kentucky, 2006), 79.

[76] Andrew J. Bacevich, *The Pentomic Era: The US Army Between Korea and Vietnam* (Washington, DC: NDU Press, 1986), 73.

[77] For an accessible account of doctrinal turnover during the first three decades of the Cold War, see Robert A. Doughty, *The Evolution of US Army Tactical Doctrine* (Fort Leavenworth: Combat Studies Institute, 1979).

[78] For the transformation of Army forces in Europe into a 'constabulary' force, see *European Command, Reorganization of Tactical Forces, VE Day to 1 January 1949* (Karlsruhe: Historical Division, European Command, 1949).

before giving way to the 'Pentomic era', a period defined by a highly original doctrine for ground combat operations that assumed the promiscuous use of atomic munitions of types designed for use on the battlefield.[79] In the early 1960s, this fanciful approach to fighting, well supplied with futuristic prototypes and freshly-minted jargon, yielded to a second resumption of a vision for ground combat operations based heavily upon the experience of the last year of the Second World War.[80]

Whilst the Army of the first half of the Cold War engaged in its game of doctrinal musical chairs, the Marine Corps managed to combine substantial cultural stability with considerable change in both equipment and modes of operation. This happy situation stemmed, in part, from a law, passed in 1952, that gave the Marine Corps definitive responsibility for the development and maintenance of expertise in the realm of amphibious operations.[81] Ownership of this unequivocal mission preserved Marines from the perennial identity crisis that plagued their Army counterparts. At the same time, the close relationship between the Marine Corps and amphibious warfare allowed Marines to experiment with a variety of techniques and technologies, whether for various types of landings or for 'subsequent operations ashore', without endangering their sense of who they were.[82]

The experience of the first 20 years of the Cold War shaped the very different ways in which the Army, on the one hand, and the Marine Corps, on the other, embraced the challenges posed by the war in Vietnam. Formations fielded by both services made extensive use of helicopters, which had originally been adopted for use on a battlefield rich in tactical nuclear weapons, to enhance conventional operations against formed bodies of Communist fighters.[83] However, where the leadership of the Marine Corps embraced the Combined Action Program, which married Marine rifle squads to units of part-time soldiers defending their home villages, the Army leadership argued

[79] The definitive study of the 'Pentomic Army' of the late 1950s and early 1960s is Bacevich, *The Pentomic Era*. For the one aspect of this revolution that survived its demise, see Christopher C. S. Cheng, *Air Mobility: The Development of a Doctrine* (Westport: Praeger, 1994).

[80] For an account of the transformation of the Army that took place in the early 1960s, see Peter Campbell, *Military Realism: The Logic and Limits of Force and Innovation in the US Army* (Columbia: University of Missouri Press, 2019), 62–74.

[81] For background on Public Law 416 of the 82nd Congress, the Douglas–Mansfield Bill of 1952, see Alan Rems, 'A Propaganda Machine Like Stalin's', *Naval History Magazine* 33, 3 (June 2019).

[82] For an account of the changes that took place in the Marine Corps in the first three decades of the Cold War, see Kenneth J. Clifford, *Progress and Purpose: A Developmental History of the United States Marine Corps, 1900–1970* (Washington, DC: Government Printing Office, 1978), 71–112. For an exploration of the relationship between the changes that took place in the 1950s and the amphibious identity of the Marine Corps, see G. F. Cribb, Jr, 'Embarkation Ready', *The Marine Corps Gazette*, August, 1959, 20–26.

[83] For a nuanced introduction to the helibourne operations conducted by the Army in Vietnam at the start of the 'main force war', see J. Paul Harris, *Vietnam's High Ground: Armed Struggle for the Central Highlands, 1954–1965* (Lawrence: University Press of Kansas, 2016), 220–400.

that all ground combat units be exclusively employed to prosecute the 'main force' war.[84]

Viewed from the point of view of the operational culture, the war in Vietnam wrought the same sorts of effects as the Pentomic reforms of the late 1950s and the constabulary transformation of the second half of the 1940s. That is, it created a period rich in peculiarities that both followed and preceded a return to normalcy. Indeed, what might be called the 'neo-classical revival' of the 1970s, which took place at a time when the Soviet Union had achieved parity in the realm of nuclear weapons, was even more conventional than the retromorphoses of the two preceding decades. In particular, it assumed that the ground forces of the North Atlantic Treaty Organization (NATO) and those of the Warsaw Pact could fight each other on German soil without necessarily resorting to atomic weapons of any kind.

The presumption that the chief mission of the Army was the waging of conventional war in Central Europe coincided with an increasingly favourable view of the German military tradition. One contributor to this phenomenon was frequent contact with members of the Army of the Federal Republic of Germany, many of whom had been trained by veterans of the Second World War who had fought against the forces of the Soviet Union. Another was an artefact of the post-war publishing industry, which had discovered that books about German soldiers were both easier to write and more likely to sell than works that told tales of their American counterparts.[85] A third reason for the increased willingness of American military men to learn from the German experience rested upon the still-fresh memory of defeat in the Vietnam war, which greatly reduced the power of the argument that, after losing two world wars, the German military tradition had nothing of value to study, let alone imitate.

As had been the case with the first wave of American enthusiasm for German military culture, admiration and understanding were two very different things. William E. DePuy, who had fought in Europe as a young infantry officer in 1944 and 1945, attributed the prowess of his erstwhile foes to 'doctrine', 'battle drill', and 'standard operating procedures', all of which were concepts alien to the German military tradition. Thus, in 1973, when DePuy

[84] For a sympathetic account of the Combined Action Program, see Ronald E. Hays II, *Combined Action: US Marines Fighting a Different War, August 1965 to September 1970* (Quantico: Marine Corps University Press, 2019).

[85] The ability of English-speaking authors to write about the German experience of the Second World War was greatly enhanced by microform publication, by agencies of the US government, of scores of millions of pages of German documents and hundreds of retrospective studies written by former German officers. For guides to these products, see Robert Wolfe, *Captured German and Related Records* (Athens: Ohio University Press, 1975) and *Catalog German Studies, 1945–1952* (Karlsruhe: Historical Division, Headquarters, European Command, 1952).

took charge of the newly formed Training and Doctrine Command, he set in motion an ambitious programme to provide the Army with a comprehensive library of prescriptive doctrinal manuals, each of which would explain to soldiers of a particular specialty exactly what they were expected to do on a Central European battlefield.[86]

In 1976, DePuy published, as the cornerstone of his 'system of field manuals', a completely reworked edition of the Army's field service regulations. In sharp contrast to previous versions of *Operations*, which had dealt largely with matters peculiar to senior commanders and their staffs, the new book was 'intended for use by commanders and trainers at all echelons'. Similarly, where previous editions of *Operations* had dealt largely in definitions, axioms, and platitudes, DePuy's *magnum opus* made an internally-consistent argument, not merely for a particular approach to the defence of West German territory against the ground forces of the Warsaw Pact, but for a specific set of combat techniques. (Some of these were products of his own experience. Others were drawn from the annals of the war between Israel and its Arab neighbours that had taken place in October of 1973.)[87]

In March of 1977, *Military Review*, the official journal of the Army Command and General Staff College at Fort Leavenworth, published a comprehensive critique of DePuy's edition of *Operations*. Written by William S. Lind, a civilian serving on the staff of Senator Gary Hart, this article took the new manual to task for, among many other things, its promotion of a tactical system that resembled that of the French Army of 1940. Instead of these 'firepower/attrition' tactics, Lind argued, the Army would be better off adopting the 'maneuver' tactics employed by the German Army in the Second World War and the Israeli Defense Forces in the recent war in the Middle East.[88]

The debate over the 1976 edition of *Operations* took place at a time when the Marine Corps was suffering from the martial equivalent of a crisis of faith. As the Inchon landings of 1950 faded into an increasingly distant memory, many Marines were hard pressed to imagine scenarios in which a full

[86] For a concise treatment of the connection between DePuy's experience of combat against German opponents and the reforms he implemented in the Army of the 1970s, see Paul H. Herbert, *Deciding What Has to Be Done: General William E. DePuy and the 1976 Edition of 100-5, Operations* (Fort Leavenworth: Combat Studies Institute, 1988), 15–18 and 75–96. For a biography that pays a great deal of attention to this relationship, see Henry G. Golem, *General William E. DePuy: Preparing the Army for Modern War* (Lexington: University Press of Kentucky, 2008).

[87] *Field Manual 100–5 Operations*, United States Army (Fort Monroe: US Army Training and Doctrine Command, 1976), cover page.

[88] William S. Lind, 'Some Doctrinal Questions for the US Army', *Military Review* 57, 3 (March 1977): 54–65.

regiment, let alone a division or more, would land upon a hostile shore.[89] When combined with the positive examples provided by recent wars in the Middle East and the 'neo-classical revival' taking place in the Army, this phenomenon led many Marines to explore the possibility of a different sort of landing operation, a 'Blitzkrieg from the Sea' carried out by sea-borne mechanized forces.[90] This, in turn, led many forward-thinking Marines to the study of the German military tradition and, in particular, the experience of the German Army of the Second World War.[91]

Over the course of the late 1970s, what had begun as an interest in the mechanization of the Marine Corps landing forces became something more cerebral and, as such, independent of any particular items of equipment. This 'maneuver warfare' movement drew inspiration from the theories of John Boyd, a retired fighter pilot who began to share his thoughts, in the form of an evolving series of briefings, in 1976. It also owed much to the work of William S. Lind, who did much, by writing, speaking, and hosting informal gatherings, to make Boyd's work accessible to Marines. Lind, an enthusiastic student of German military history, also introduced many Marines to relevant aspects of the German military tradition.[92]

In the Marine Corps of the 1980s, the influence of the manoeuvre warfare movement grew considerably. One reason for this was a marked improvement in the quality of people volunteering for service and the consequent increase in the number of people attracted to a philosophy that emphasized the importance of the initiative, creativity, and professionalism of junior leaders. Another was the involvement of Marine Corps units on the 'northern flank' of NATO, which led, among other things, to the study of the Russo-Finnish Winter War of 1939–1940 and contemplation of the possibility that Marines would have to fight Soviet ground forces.[93] A third contributor to the influence of the manoeuvre warfare movement within the Marine Corps of the 1980s was the absence of any attractive alternative. Thus, Marines

[89] For an influential expression of the scepticism about the viability of large-scale amphibious operations in the 1970s, see Jeffrey Record and Martin Binkin, *Where Does the Marine Corps Go from Here?* (Washington, DC: Brookings Institution, 1976).

[90] For an application of the term 'Blitzkrieg from the Sea' to landing operations conducted by mechanized forces, see Richard S. Moore, 'Blitzkrieg from the Sea: Maneuver Warfare and Amphibious Operations', *Naval War College Review* 36, 6 (November–December 1983): 37–48.

[91] For an extensive discussion of the role of German examples in the early days of the 'Maneuver Warfare movement' in the Marine Corps, see Marinus, 'Learning from the Germans: Part I', *The Marine Corps Gazette*, December, 2020, 52–55.

[92] For an account of the role played by William S. Lind in the manoeuvre warfare movement, see Fideleon Damian, *The Road to FMFM 1: The United States Marine Corps and Maneuver Warfare Doctrine, 1979–1989* (Kansas State University, Masters Thesis, 2008), 29–37.

[93] For the connection between the manoeuvre warfare movement and study of the Winter War, see Michael D. Wyly, 'Fighting the Russians in Winter: Three Case Studies, Leavenworth Papers no. 5', *Marine Corps Gazette*, April, 1983, 76–77.

opposed to the new philosophy could imitate the methods learned in Army schools, indulge in nostalgia, or wax rhapsodic about the power of particular weapons. They failed, however, to come up with an overall approach capable of competing with manoeuvre warfare.[94]

In March of 1989, Alfred M. Gray, Jr, then serving as commandant of the Marine Corps, promulgated a formal explanation of manoeuvre warfare. Called *Warfighting*, this little book might well be described as the anti-thesis to the 1976 edition of *Operations*. Where *Operations* dealt in specific techniques, *Warfighting* provided a philosophy. (The first of the four chapters of the work was called 'The Nature of War'.) Where *Operations* prepared the Army to fight in a particular location, *Warfighting* presumed that Marines needed to be ready to fight 'in every clime and place'. Where *Operations* was the harbinger of a 'system of field manuals', *Warfighting* reduced most other manuals, whether published by the Army or the Marine Corps, to the status of 'reference publications'.[95] In other words, the publication of *Warfighting* was, among many other things, an explicit repudiation of the prescriptive approach to doctrine championed by William E. DePuy.

In May of 1989, at a conference convened at the Marine Corps base at Quantico to discuss manoeuvre warfare, Hasso von Uslar, a military officer serving at the embassy of the German Federal Republic in Washington, demonstrated a simple map problem. This encouraged John F. Schmitt, the Marine who wrote most of *Warfighting*, to start a working group dedicated to the revival of such 'tactical decision games'. Soon thereafter, the *Marine Corps Gazette* made exercises of this sort, many of which were composed by Schmitt, a regular feature.[96] (Marvellous to say, whilst some members of the working group based their tactical decision games on historical events, no one made any attempt to revive historical map problems of the type championed by George S. Marshall.)[97]

Whilst the Marine Corps embraced 'a new conception of war', the Army continued to follow the course laid out by DePuy in the 1970s.[98] Thus, whilst

[94] The most articulate opponent of manoeuvre warfare in the Marine Corps of the 1980s was Gordon D. Batcheller. For his critique, see the articles on the subject that he wrote for the *Marine Corps Gazette* in this decade: 'Let's Watch Where We're Going!', June, 1981, 18–19; 'Reexamining Maneuver Warfare', April, 1982, 22–23; and 'Sorting Out Maneuver and Attrition', January, 1987, 79.

[95] *Fleet Marine Force Manual 1: Warfighting*, United States Marine Corps (Washington, DC: United States Marine Corps, 1989), cover page.

[96] For a collection of these map problems, see John F. Schmitt, *Mastering Tactics: A Tactical Decision Games Workbook* (Quantico: Marine Corps Association, 1994).

[97] The author of this article, who was serving in the Marine Corps at this time, both attended the manoeuvre warfare conference in May of 1989 and participated in the tactical decision game working group.

[98] The phrase 'a new conception of war' is taken from the title of Ian T. Brown, *A New Conception of War: John Boyd, the US Marines, and Maneuver Warfare* (Quantico: Marine Corps University Press, 2018).

the two editions of *Operations* that were published in the 1980s described ideal battles that differed considerably from those depicted in the edition of 1976, they shared with their predecessor the presumption that the purpose of doctrine was the provision of a set of scripts which, whilst requiring 'judgement in application', minimized the custom tailoring that leaders in the field might be called upon to do.[99] Each also rested on a set of subsidiary publications that, as a rule, changed more slowly than the 'keystone' field manuals.[100]

The experience of the Gulf War of 1991 convinced many American soldiers of the essential soundness of the Army's operational culture. This victory coincided with a sea-change in the realm of academic military history. The 1990s saw the rise of a generation of scholars, many of whom were retired Army officers or civilian employees of the Army, who celebrated the triumph of American arms in the Second World War as the natural outcome of the Army's operational culture.[101] The resulting atmosphere of self-satisfaction was exacerbated by the collapse of the Soviet Union, which deprived the Army of the stimulus that had long been provided by the imminent possibility of war in Central Europe. Nonetheless, a number of army officers found much to like in the manoeuvre warfare movement and, over the course of the 1990s, formed a counter-culture comparable (in quality, if not in influence) to that of the Infantry School of the 1930s.[102]

The Marine Corps of the 1990s suffered from a relapse of the identity crisis from which it had suffered in the 1970s. In first half of the decade, the official response to this problem took the form of a renewed emphasis on the naval character of the Marine Corps and, in particular, the use of Marine units afloat to provide the USA with a global emergency response force.[103] In the second half of the decade, the Marine Corps entertained a fad worthy of Army's Pentomic era. Successively known as 'Green Dragon', 'Sea Dragon', and 'Hunter Warrior', this took the form of an attempt to replace traditional

[99] For a thorough account of the replacement of the 1976 edition of Operations with that of 1982, see John L. Romjue, *From Active Defense to AirLand Battle: The Development of Army Doctrine, 1973–1982* (Fort Monroe: Army Training and Doctrine Command, 1984).

[100] For a discussion of the problem of harmonizing subsidiary field manuals with keystone doctrinal publications, see Michael P. Coville, *Tactical Doctrine and FM 100-5* (Fort Leavenworth: School of Advanced Military Studies, 1991).

[101] For a paragon of this genre, see Keith E. Bonn, *When the Odds Were Even, An Operational History of the Vosges Campaign October 1944–January 1945* (Novato: Presidio Press, 1994).

[102] For several views of the manoeuvre warfare movement within the Army of the early 1990s, see Richard D. Hooker, Jr., *Maneuver Warfare: An Anthology* (Novato: Presidio Press, 1993).

[103] Carl E. Mundy, Jr., 'Reflections on the Corps: Some Thoughts on Expeditionary Warfare', *Marine Corps Gazette*, March, 1995, 26–29.

ground combat units with swarms of six-man reconnaissance teams, each of which was able to direct the fire of long-range missiles of various kinds.[104]

Throughout the 1990s, many Marines looked to manoeuvre warfare as a means of mitigating the identity crisis of that decade and, in particular, of distinguishing the Marine Corps from the Army. However, public embrace of the artefacts of a philosophy, the most salient of which was *Warfighting*, did not require a full understanding of its tenets, let alone its implications. Thus, throughout the decade, many Marines continued to confuse manoeuvre with movement, to refer to reference publications as 'doctrine', and to embrace formal planning processes that aped those of the Army.[105] The close association between the Marine Corps and manoeuvre warfare, moreover, led easily to the assumption that everything that Marines did, or, indeed, had done in the past, was *ipso facto* a reflection of that philosophy. In 1996, for example, the Marine Corps published a concept paper that, among other things, described the painfully slow exploitation of the Inchon landing of 1950, in which American forces required eleven days to advance less than 18 km, as a paragon of 'operational maneuver from the sea'.[106]

At the end of the twentieth century, few serving in the American ground forces remembered Eben Swift. Fewer still had any knowledge of 'The Lyceum at Fort Agawam'. The pattern established by that article, however, persisted for a century. Like Swift, American soldiers and Marines struggled with the fundamental paradox of war on land, the coexistence of the organizational need for order, and the inherently chaotic nature of armed conflict. They thus attempted to strike a balance between predictability and creativity, prefabrication and custom-tailoring. At times, this resulted in moments of brilliant improvisation, adaptation, and boldness, and even periods when such virtues were fostered in a systematic way. On the whole, however, Americans who fought on land, like Swift himself, preferred method to manoeuvre.

[104] For an official view of this enterprise, see Charles C. Krulak, 'Innovation, the Warfighting Laboratory, Sea Dragon, and the Fleet Marine Force', *Marine Corps Gazette*, December, 1996, 12–17. For a very different view, see, John F. Schmitt, 'A Critique of the Hunter Warrior Concept' *Marine Corps Gazette*, June, 1998, 13–19.

[105] For an example of these tendencies, see Paul A. Hand, 'Planning the Battalion Attack: A New Paradigm for an Old Process', *Marine Corps Gazette*, December, 1995, 22–28.

[106] United States Marine Corps, *Marine Corps Concept Paper 1: Operational Maneuver from the Sea* (Washington, DC: Headquarters, United States Marine Corps, 1996), 15 and Russell H. S. Stolfi, 'A Critique of Pure Success: Inchon Revisited, Revised, and Contrasted', *The Journal of Military History* 68, 2 (April 2004): 505–525.