

PROFESSIONALIZATION IN PEACETIME:
THE ORIGINS OF PME IN THE POST-CIVIL WAR PERIOD

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INTRODUCTION

For both the army and navy, the Civil War revealed significant shortcomings in the professionalism of the officer corps and the cost of putting laymen at the helm of command. The years following the Civil War were fraught with challenges as significant manning and budgetary reductions reflected the low priority the military often receives in times of peace. Nevertheless, military reformers like Stephen Luce and Emory Upton championed transformations within the army and navy that reshaped the services indefinitely. Prior to the Civil War, U.S. military officers simply did not regard themselves as members of the profession of arms. Admiral Luce would later write that the Civil War “brought out the fact that our system of Naval Administration was organized on the history of perpetual peace,” which in his view was a strategic shortcoming to be remedied by the professionalization of the service.¹ The absence of formal instruction in the profession of arms resulted in “aiming at the wrong objective.” In Luce’s eyes, the officer corps in the Civil War was full of courageous leaders “wholly ignorant of war.”² To counter this misconception, both Luce and Upton sought to reshape the self-image of American officership to be, as Luce put it, “a learned profession in the same sense as law or medicine, being consciously aware of the progress they had made in this direction.”³

The impetus for these reforms in both services can be traced to General William Sherman. Luce famously met Sherman in 1865. The meeting changed Luce’s thinking and the trajectory of his career, and it ultimately led to his greatest contribution to the navy: the founding of the Naval War College. Yet for all its lasting impact, the meeting was brief. Sherman described to Luce how, in contrast to the navy bombardment of Fort Sumter for three years, he

¹ Stephen Luce, “On the Relations Between the U.S. Naval War College and the Line Officers of the Navy,” U.S. Naval Institute *Proceedings* Vol. 37 (1911): 785.

² Luce, “Relations Between the U.S. Naval War College and Line Officers,” 793.

³ Samuel Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations* (Cambridge: Harvard University Press, 1957), 256.

could have made Charleston fall by cutting off its communications and the city would “fall into your hands like a ripe pear.” Luce recalled his later astonishment as it fell exactly as Sherman said it would:

After hearing General Sherman’s clear exposition of the military situation the scales seemed to fall from my eyes. “*Here*” I said to myself, “*is a soldier who knows his business!*” It dawned upon me that there were certain fundamental principles underlying military operations, which it were well to look into; principles of general application whether the operations were conducted on land or sea.⁴

This passing encounter provided Luce with a vision of the kind of officer he wanted to build through naval education. Already exposed to formal military education through the U.S. Naval Academy, Luce was grappling with the shortcomings he saw in naval administration, officer development, and strategy, and he worked diligently to articulate what he saw as the ideal solutions. Most importantly, the encounter with General Sherman brought to Luce’s awareness, as he later put it, that there was “such a thing as a military problem; and [that] there was a way of solving it; or, what is equally important, a way of determining whether or not it was susceptible of solution.”⁵ Luce eventually sought to create the Naval War College to provide a vehicle for naval officers to solve both current and future military problems.

Sherman had a much closer relationship with Emory Upton, leading many to refer to Upton as Sherman’s protégé. First an artillery officer and then ultimately a regimental commander in the Civil War, Upton distinguished himself by developing innovative tactics, most famously at the battle of Spotsylvania.⁶ After the war, he was assigned to West Point as the Commandant of Cadets where he also taught tactics for infantry, artillery, and cavalry.⁷ It was in this role that Upton and Sherman developed their close professional relationship that would

⁴ Stephen Luce, “Naval Administration, III,” U.S. Naval Institute *Proceedings* Vol. 29 (1903): 820.

⁵ Luce, “Naval Administration III,” 820.

⁶ Stephen Ambrose, *Upton and the Army* (Baton Rouge: Louisiana State University Press, 1964), 59.

⁷ Ambrose, *Upton and the Army*, 71.

continue throughout Upton's life. Sherman sent Upton on a world tour, and when he returned, Upton advocated for significant reforms including the establishment of institutions of advanced military education. While on the staff at the Artillery School of Practice in Fort Monroe, Virginia, Upton had the chance to enact his recommendations. In 1881, the year of Upton's untimely death, Sherman founded the institution that became the Command and General Staff College at Fort Leavenworth, Kansas, partly, at least, as a result of Upton's recommendations. Luce and Upton therefore both left lasting legacies to their services in the form of professional military education institutions. Their personal stories, academic influences, visions, and motivations for creating their respective institutions share many similarities and notable distinctions, which this article will explore.

Historians have studied both Luce and Upton closely, though not as closely as their mentor, Sherman. One of the most well-known figures in U.S. military history, Sherman has been the subject of numerous biographies. Most focus on his career in the Civil War, though some do mention his influence on Upton after the war.⁸ As for Upton, Stephen Ambrose wrote a comprehensive biography titled *Upton and the Army*, and there have been a few other studies of his tactical innovations and contributions to army reform captured in works focusing on these topics.⁹ There is also a short history of the Command and General Staff College, published in 1978, which mentions Upton's influence.¹⁰ For Luce, John Hayes and John Hattendorf edited Luce's letters and Hattendorf was subsequently the lead author on the centennial history of the

⁸ John Marszalek, *Sherman: A Soldier's Passion for Order* (New York: The Free Press, 1993); and Robert L. O'Connell, *Fierce Patriot: The Tangled Lives of William Tecumseh Sherman* (New York: Random House, 2014).

⁹ Ambrose, *Upton and the Army*; Robert N. Thompson, *General Emory Upton in the Civil War: The Formative Experiences of an American Military Visionary* (Jefferson, North Carolina: McFarland & Company Publishers, 2019); and David J. Fitzpatrick, *Emory Upton: Misunderstood Reformer* (Norman: University of Oklahoma Press, 2017).

¹⁰ Boyd L. Dastrup, *The U.S. Army Command and General Staff College: A Centennial History* (Manhattan, Kansas: Sunflower University Press, 1981).

Naval War College, published in 1984.¹¹ Albert Gleaves also authored a work in 1925 offering a fairly comprehensive study of Luce's life and letters.¹²

Surprisingly, there is not a study that compares and contrasts Upton and Luce. The two men not only came from different services, they also took different approaches to professional military education and, because of that, the schools they helped found are also quite different. Though both men both saw Sherman as a mentor and each helped establish the core professional military education institutions of their respective services, little work has been done to connect the two men and embed their stories in the broader history of professional military education. Hattendorf, in his work *The Writings of Stephen B. Luce*, mentions similarities between Luce and Upton as a way of highlighting Luce's international network, but it does not explain how the Naval War College and Army Command and General Staff College came to take such different approaches to professional military education. This article attempts to fill that gap. In doing so, it offers a new perspective on the origins of professional military education and suggests some ways in which those origins can inform current leaders about how reform can be accomplished and the importance of professional military education to today's officer corps. By examining the two institutions and their champions, it will become clear how military service culture combined with the personalities of the founders and their wartime experiences to shape the lens through which the army and navy viewed education and its implications for future warfighting.

¹¹ John D. Hayes and John B. Hattendorf, *The Writings of Stephen B. Luce* (Newport, RI: Naval War College Press, 1975); John Hattendorf, B. Mitchell Simpson, and John R Wadleigh, *Sailors and Scholars: The Centennial History of the U.S. Naval War College* (Newport, RI: Naval War College Press, 1984),

¹² Albert Gleaves, *Life and Letters of Rear Admiral Stephen B. Luce, U.S. Navy, Founder of the Naval War College*, (New York: G.P. Putnam's Sons, 1925).

STEPHEN B. LUCE

Stephen Bleecker Luce entered the navy as a midshipman in 1841 and continued to serve through the Mexican and Civil Wars, retiring in 1889.¹³ He spent the first six years of his service in the navy were spent on ships, but he was an avid reader from an early age. A shipmate inscribed to him a small book of history about ancient Greece: “With this little volume my Dear Luce, you can teach yourself the history of one of the most important epochs of the world—when learning was in its infancy—and when education was the monopoly of a class.”¹⁴ In many ways this was a prophetic inscription, as education and the role of history would have a significant impact on Luce’s career, and through Luce’s protégé, Alfred Thayer Mahan, on the United States Navy.

In 1857, Luce was assigned to a ship off the east coast of Central America. During this time, he gained critical experience that informed his notion of how an effective navy should operate. Only a year later, in 1858, Luce wrote in his private journal “that the navy should be re-organized...the present system of education is good, but it is yet imperfect,” Luce observed, “Every ship in the service should have the same internal rules and regulations...They should differ as little as possible. The English Navy in some respects is a very good pattern. We only seem to copy their uniforms. Will nothing less than a war effect a change for the better in the navy?”¹⁵ He was prophetic, as the Civil War exposed many of the navy’s shortcomings.¹⁶

In the spring of 1860, Luce was assigned to the U.S. Naval Academy at Annapolis to be the assistant to the Commandant of the Midshipmen for a brief tenure prior to the outbreak of the

¹³ Hayes and Hattendorf, *The Writings of Stephen B. Luce*, 1.

¹⁴ Inscription is signed, “By your sincere friend, Robert C. Rogers, *Congress*, November 23d. ’43,” referenced in Hayes and Hattendorf, *The Writings of Stephen B. Luce*, 5.

¹⁵ Stephen Luce, “Private Journal,” ca. 1858, Luce Papers, Library of Congress [hereafter LC], referenced in Hayes and Hattendorf, *The Writings of Stephen B. Luce*, 7.

¹⁶ Luce, “Relations Between the U.S. Naval War College and Line Officers,” 786.

Civil War. Two significant opportunities presented themselves to Luce during this time. The first was his opportunity to publish and write on military training when he compiled and revised Naval Academy textbooks. He immediately took note of the shortcomings of professional naval literature, specifically regarding naval gunnery. He wrote to the Commandant, “Compared to the army with their wealth of professional literature, we may be likened to the nomadic tribes of the East who are content with the vague tradition of the past. Does it seem creditable then, Sir, to this Institution that it should possess no text book on the most important branch taught within its halls?”¹⁷

Luce’s second major opportunity was a trip to Washington to warn politicians about the threat to the U.S. Naval Academy from Southern sympathizers on the eve of the Civil War and the defenseless position of the institution. His warnings went unheeded, as the Secretary of the Navy, Gideon Welles, did not consider the situation to be serious at the time.¹⁸ Nevertheless, the experience provided Luce with his first exposure to institutional advocacy and political considerations for policy which would become much more significant to him later in his career. The outbreak of the Civil War ultimately resulted in a change of location for the U.S. Naval Academy to Newport, Rhode Island.

During the War, Luce’s service was divided between the Naval Academy and in the South Atlantic Blockading Squadron. In this squadron Luce participated in early blockades, operations at Hatteras inlet, and the battle for Port Royal, South Carolina. Back at the Naval Academy, Luce took command of the midshipmen practice squadron, consisting of three ships, and took more than 300 midshipmen on a tour of Europe in the summer of 1863 on the sailing frigate *Macedonian*. The tour included visiting naval activities at Portsmouth, Plymouth,

¹⁷ Stephen Luce to C.P.R Rogers, Commandant of Midshipmen, 26 February 1861, Luce Papers, LC, referenced in Hayes and Hattendorf, *The Writings of Stephen B. Luce*, 8.

¹⁸ Gleaves, *Life and Letters of Admiral Luce*, 71.

Cherbourg, and Lisbon.¹⁹ Luce produced a comprehensive report on European naval training systems, which he later utilized for reference in future articles and letters as he sought to revise the navy's training system.²⁰ After this tour of Europe, Luce then was assigned to command the *Nantucket*, a Passaic-class coastal monitor. Immediately he took note of the poor quality of men in the Union Navy, which did not seem to have improved since his complaints in 1858. True to his instinct of improvement, Luce sought to understand why these personnel issues plagued the navy. Accordingly, he authored numerous articles on naval personnel and training for the *Army and Navy Journal* and developed and promoted an apprentice program for the navy and a similar program for those aspiring to be officers in the merchant marine.²¹

In September 1864, Luce took command of the gunboat *Pontiac* off the coast of Charleston. In command, he implemented an educational policy for those on board the ship and punished any non-compliance with confinement.²² It was while in command of the *Pontiac* that Luce met Sherman. The purpose of the meeting was for Sherman to enlist the assistance of *Pontiac* to provide gunnery support and protection for the construction of a pontoon bridge. Once the operations were established, Sherman provided his rapid-fire exposition of his plan to make Charleston fall, telling Luce that despite the navy's best efforts to make the city fall by bombarding Fort Sumter for three years, he would render the city inoperable by severing her communications. As mentioned earlier, in the weeks that followed, Luce watched in awe as what General Sherman predicted occurred exactly as he said it would.²³ It was, Luce later recalled, a seminal moment in his professional life. The Secretary of the Navy, Luce concluded, needed a competent staff of experts to advise him on how to solve military problems. The way to generate

¹⁹ Gleaves, *Life and Letters of Admiral Luce*, 80–6.

²⁰ Hayes and Hattendorf, *Writings of Stephen B. Luce*, 8–9.

²¹ Hayes and Hattendorf, *Writings of Stephen B. Luce*, 9.

²² Gleaves, *Life and Letters of Admiral Luce*, 98.

²³ Gleaves, *Life and Letters of Admiral Luce*, 101–2.

that expertise was formal instruction of instruction in the military arts and sciences.²⁴ Two decades before the Naval War College would open its doors to students, the idea of the institution had been born and Luce would spend the next twenty years leveraging every avenue available to him to make this institution a reality.

One unique quality Luce demonstrated in these two decades was his ability to build a professional network. He not only was the founder, first president, and designer of the Naval War College, he was also and always its advocate. He understood that the future of his creation depended on support in Washington. Drawing on his earlier experience on the eve of the Civil War, he sought and gained access to numerous Secretaries of the Navy so he could promote education and training initiatives. His ideas were not always accepted. On the contrary, Luce met a fair amount of opposition on his path to establish the Naval War College, yet he never lost sight of the importance of the office of the Secretary of the Navy to enact departmental change.

In addition to influencing the Secretaries of the Navy, Luce also wrote personal letters to gain the support of other professionals, the public, congress, or even the president. He was considered by many to be the “the most public relations-conscious flag officer of his day.”²⁵ Additionally, he was also adept at building personal contacts that turned out to be highly significant. While inspecting the apprentice program on *Mercury*, he met the elder Theodore Roosevelt and, through this connection, later met his son, the future Assistant Secretary of the Navy and president. Luce made sure to introduce the young Roosevelt to Luce’s protégé, the prominent naval theorist, Alfred Thayer Mahan.²⁶

Luce also worked to build a prolific academic network. In addition to Luce’s contributions to the U.S. Naval Institute *Proceedings* and the *Army and Navy Journal*, Luce

²⁴ Luce, “Naval Administration III,” 820.

²⁵ Hayes and Hattendorf, *Writings of Stephen B. Luce*, 32.

²⁶ Hayes and Hattendorf, *Writings of Stephen B. Luce*, 33.

formed a relationship with British naval historian John Knox Laughton that would be formative in elevating Luce's approach to education. The two met in 1870 at the Royal United Services Institution, where they discovered a shared enthusiasm for naval issues. In regular correspondence beginning in 1875, they discussed navigation issues and the role of history in the development of naval tactics and doctrine.²⁷ Luce read Laughton's two highly influential articles that were published in 1870, "The Scientific Study of Naval History" and "An Essay on Naval Tactics," and found them to be highly instructive. Luce even went as far as to acknowledge Laughton in the footnotes of one of his articles for "many valuable lessons" which was high praise in recognition of Laughton's contributions to the U.S. Navy and a bold statement at a time when relations between the U.S. and U.K. were strained.²⁸

The two exchanged papers on a variety of naval and historical issues. Luce sent Laughton volumes of *Proceedings* for his review and opinion and boldly sought Laughton's critiques on his own work even when he recognized his work was not as advanced as he desired. As an example, Luce wrote to Laughton that he had published a few articles in an encyclopedia, one which focused on tracing naval tactics from their origin through present day, but acknowledged the simplicity of the project stating, "I would not mislead you in regard to my paper on tactics, it is simply a brief historical sketch exposing no opinions...I shall take great pleasure in forwarding you a copy."²⁹ In Laughton, Luce found a willing ally to engage on matters of training and education. Luce's ultimate legacy to the U.S. Navy, the U.S. Naval Institute and the Naval War

²⁷Andrew Lambert, ed., *Letters and Papers of Professor Sir John Knox Laughton, 1830–1915* (Navy Records Society, 2002), 8.

²⁸ Stephen Luce, "On the Study of Naval History (Grand Tactics)," U.S. Naval Institute *Proceedings* Vol. 13 (1887): 175–201, referenced in Hayes and Hattendorf, *Writings of Stephen B. Luce*, 71.

²⁹ Lambert, ed., *Letters and Papers of Professor Sir John Knox Laughton*, 11.

College, reflect his interactions with Laughton and subsequent appreciation of the British tradition at sea.³⁰

In addition to all that Luce learned from Laughton, the relationship with Laughton also brought legitimacy to the U.S. Navy's academic endeavors. Laughton reviewed Mahan's *The Influence of Sea Power upon History, 1660–1783* in the *Edinburgh Review* in 1890, thus ushering Mahan before the British public and into Britain's respected academic community. Laughton also provided constructive criticism to Mahan, contained in letters back to Luce, when he deemed necessary. When Laughton wrote to Luce that he would publish a review of Mahan's book, he was quick to point out many "trifling mistakes" and, "that the title is not the best possible."³¹

Laughton's critiques of Luce's work reveal that Luce himself was not a polished academic. While Luce had innovative ideas, he frequently made mistakes in his scholarship, highlighting the value of Laughton's mentorship and feedback. With a formal education providing a strong academic foundation for his endeavors, Laughton was meticulous and carefully verified his claims with extensive research and original documents. In contrast, Luce's methods were indicative of a layman's attempt. He was occasionally inaccurate with his quotations or, in some cases, simply incorrect. Yet, Luce was undeterred by his own limitations and sought to improve his scholarship and refine his writing through feedback with Laughton. He was relentless in his pursuit of solutions to the navy's most pressing issues, found experts more advanced than himself for assistance, and employed historical scholarship for the purpose

³⁰ Lambert, ed., *Letters and Papers of Professor Sir John Knox Laughton*, 8.

³¹ Lambert, *Letters and Papers of Professor Sir John Knox Laughton*, 68.

of developing naval education.³² These pursuits ultimately led him to examine the army's approach to professional military education already underway at Fort Monroe, Virginia.

Luce's willingness to examine the army's approach to professional military education was revolutionary in and of itself. The navy's bombardment of Fort Sumter in Charleston Harbor provides an excellent example of the climate between the army and navy in the Civil War.

Admiral Samuel F. DuPont commanded the navy's fleet off Charleston. On February 16, 1863, Secretary of the Navy, Gideon Welles, wrote in his diary that his intent of the operation was to demonstrate that "the navy could move independent of the army"³³ He also expressed uncertainty about DuPont's leadership, specifically that DuPont was plagued by "misgivings and doubt which have recently come over him [such as] getting in with the army," which was "not what we expected of him."³⁴ As a follow-up, the Assistant Secretary of the Navy, Gustavus Fox, wrote directly to Admiral DuPont on February 20, 1863, informing him that, "the President and Mr. Welles are very much struck with [the navy's plan for Charleston]" and that, "the sublimity of such a silent attack is beyond words to describe, and I beg of you *not to let the army spoil it*."³⁵ To alleviate any doubt about the intention of his admonition to Admiral DuPont, Fox made clear that "the immortal wreath of laurel should cluster around your flag alone."³⁶ The army and navy were in competition for glory at Charleston and the senior navy leadership was bound and determined the glory would be theirs alone.³⁷

When viewed in this light, Luce's appreciation for Sherman's military strategy to defeat Charleston is even more impressive. He was not only receptive to a solution presented to him by

³² Hayes and Hattendorf, *Writings of Stephen B. Luce*, 71.

³³ Gideon Welles, *Diary of Gideon Welles, Secretary of the Navy Under Lincoln and Johnson, Volume 1* (New York: Houghton Mifflin Company, 1911), 236.

³⁴ Welles, *Diary of Gideon Welles*, 237.

³⁵ Gustavus Fox, *Confidential Correspondence of Gustavus Vasa Fox – Assistant Secretary of the Navy 1861–1865 Volume 1* (New York: De Vinne Press, 1918), 181.

³⁶ Fox, *Confidential Correspondence of Gustavus Vasa Fox*, 182.

³⁷ Craig Symonds, *Lincoln and His Admirals*. New York: Oxford University Press, 2010, 200-211.

someone outside the navy, but from a leader of a rival service. He observed Sherman's execution to render Charleston inoperable by severing communications with an open mind and was in awe of the accuracy in which Sherman predicted the effects of his operation. Luce transcended departmental divides to recognize the value of an idea that proved to be effective versus the aimless promotion of the navy. This alone speaks to the intellectual curiosity Luce possessed and his willingness to set aside service pride to be open-minded.

Due to his meeting with Sherman, Luce recognized the similarities and overarching military principles between the army and the navy that served as a helpful template to inform his thinking. In 1877, while in command of *Hartford*, Luce examined the only postgraduate military school in America, the Artillery School of Practice at Fort Monroe, Virginia, and there he met Colonel Emory Upton, then serving as the school's superintendent.³⁸ Having already given considerable thought to the prospect of establishing a postgraduate school for naval officers, the school was of supreme importance to Luce and he expanded his professional network yet again by building a relationship with Upton and corresponding with him on issues of military reform and education. In addition to their professional relationship, the two shared a personal relationship. Luce later told a friend that he conversed and corresponded with Upton a great deal about his ideas and Upton was a source of encouragement to take action on them.

Having already explored broader concepts in training and education, Luce wanted to observe the army's approach to military education up close. It was through Upton that Luce gained a familiarity with the Prussian military model and the concept of the Prussian General Staff. That informed his subsequent article, "Naval Administration III," which promoted broader advocacy of formalized professional education and a general staff for the navy, similar to what

³⁸ Ambrose, *Upton and the Army*, 96.

Upton was doing for the army.³⁹ Luce's visit to Fort Monroe and subsequent professional relationship with Upton helped crystallize the specific vision of the Naval War College.⁴⁰ His writings indicate that Luce had been working towards the idea of establishing an institute of professional military education for the navy, but not until 1877 did he begin to lobby the navy explicitly for such an institute.

Luce and Upton corresponded about Luce's vision for the Naval War College and about shared professional writings. A few months after Luce wrote to the Secretary of the Navy, Upton wrote to Luce thanking him for an article Luce wrote, stating, "it gave me quite new ideas as to the similarity between land and naval tactics."⁴¹ Upton also encouraged Luce to pursue founding a formal institute: "[Y]our project is a worthy one," he wrote, "someone must start the scheme, and I sincerely hope that as you have done so, you may be able to inaugurate the course and witness its triumph."⁴² Upton also benefitted from Luce's perspective as Upton was simultaneously providing recommendations to the army about how to expand its current professional military education to include other branches. He wrote to Luce, "I can now fully comprehend your scheme in relation to a post graduate course as a means of educating the officers of the navy in the strategy and tactics of their profession."⁴³

In Upton, Luce found a reform-enthusiast who was a welcome contrast to the skepticism of most naval leaders. On August 8, 1877, in the midst of his correspondence with Upton, Luce had written to the Secretary of the Navy proposing the establishment of "a school wherein our junior officers shall be carried through a post graduate course consisting of the higher branches

³⁹ James Bradford, *Admirals of the New Steel Navy: Makers of American Naval Tradition* (Annapolis: Naval Institute Press, 1990), 11.

⁴⁰ Azar Gat, *A History of Military Thought: From the Enlightenment to the Cold War* (New York: Oxford University Press, 2001), 443–4.

⁴¹ Gleaves, *Life and Letters of Admiral Luce*, 170.

⁴² Gleaves, *Life and Letters of Admiral Luce*, 170.

⁴³ Upton to Luce, 16 October 1877, Luce Papers, LC; and Upton to Luce, 26 August 1878, U.S. Naval Academy Museum, referenced in Gleaves, *Life and Letters of Admiral Luce*, 170.

of their profession.”⁴⁴ He cited the Artillery School of Practice at Fort Monroe as an example and lobbied the navy to send a few naval officers to attend the school at Fort Monroe in preparation for instructor duty at the navy’s institute. While the proposition was received favorably, the navy took no immediate action.

In 1882, Luce was assigned as the senior member of a commission to study and to make recommendations on the conditions of naval stations and navy yards. As the senior member of the commission, Luce had the opportunity to work closely with Secretary of the Navy William Chandler. Luce saw the opportunity to present to the secretary his ideas on naval education, strategy, and administration.⁴⁵ He also appealed to a broader audience in an article published the next year, titled “War Schools.” In it, he noted the value of the army’s advanced schools and suggested that the curricula of the army’s schools at Fort Monroe, Fort Leavenworth, and Willets Point in New York Harbor would be strong templates for the navy to follow: “This is just what we need for the navy. The naval officer, not less than the army officer, should possess a knowledge of the science and practice of war so far as it can be acquired from books.”

But Luce was not simply copying the army’s approach. Drawing on his own studies and his correspondence with men like Laughton, Luce argued that naval officers needed more. In addition to the practical application the army employed, the naval officer should have “some idea of the principles of strategy,” and a “philosophic study of naval history” so as to recognize the principles of science and the rules of the art of war. He thought a naval school must include “a course in international law, the higher mathematics, languages, astronomy, and hydrography.” He ended the essay offering what he considered to be the ideal location for such an institution: Coasters Harbor Island in Newport, Rhode Island. It already contained suitable buildings, he

⁴⁴ Gleaves, *Life and Letters of Admiral Luce*, 168–70.

⁴⁵ Bradford, *Admirals of the New Steel Navy*, 11.

argued, and there were nearby facilities to practice submarine work, a torpedo station, and a location that offered great gun and small-arm firing. Building on his experience at the U.S. Naval Academy, Luce argued that a post-graduate course could build upon the academic foundations of the academy with “studies better suited to more mature minds.”⁴⁶

He leveraged his experience with writing and influencing public opinion to encourage the editor of the *Army and Navy Journal* to publish articles on the subject of education for the navy, which started a conversation and indicated a professional desire for the navy’s own war school. He capitalized on the opportunity momentum and wrote a letter to the Secretary of the Navy officially recommending a naval school for “the higher branches of the naval profession: the science of war, naval tactics, military and naval history, international law, military and naval law, modern languages, and such elective branches as might be found desirable. He specifically cited the army’s schools of application as an able template from which to build the navy’s school.⁴⁷ Despite pushback from senior officers, Luce believed that education was vital to the U.S. Navy becoming truly professional and a world-class fighting force. To do this, naval officers needed to be educated specialists in the conduct of war and not merely masters of seamanship.⁴⁸

In the spring of 1884, Luce met with Secretary of the Navy William Chandler, which resulted in Chandler appointing a board, chaired by Luce, to report and consider the subject of a postgraduate course or school of application for the navy.⁴⁹ On June 13, 1884, the Luce Board (as it was colloquially known) met on the USS *New Hampshire* and concluded its findings. It submitted an extensive report on the scope of instruction and recommended Newport, Rhode

⁴⁶ Stephen Luce, “War Schools.” U.S. Naval Institute *Proceedings* Vol. 27 (1883): 655–7.

⁴⁷ Hattendorf, et al., *Sailors and Scholars*, 17.

⁴⁸ Ronald Spector, *Professors of War: The Naval War College and the Development of the Naval Profession* (Newport, RI: Naval War College Press, 1977), 14.

⁴⁹ Gleaves, *Life and Letters of Admiral Luce*, 174.

Island, as the location. The board considered New York, Washington, Boston, and Annapolis, but only Boston and Newport had ground readily available for a school. Newport offered “exceptional advantages” by possessing access to the fleet and the Torpedo School as well as proximity to Boston’s intellectual capital.⁵⁰ Additionally, the board’s recommendations placed “the immutable principles of war” and the study of the naval history as the focal point of the curriculum. It also recommended instruction in the art of diplomacy and international law.⁵¹ Luce’s efforts had paid off.

On October 6, 1844, Secretary Chandler issued General Order No. 325, officially establishing the Naval War College and bringing Luce’s dream to fruition. The order stated, “A college is hereby established for an advanced course of professional study for naval officers, to be known as the Naval War College.”⁵² Luce was named the college’s first President and he reported to Coaster’s Harbor Island, the selected site for the Naval War College, outside of Newport, Rhode Island. The only building on Coaster’s Harbor Island that could serve as the first location for the Naval War College was a former asylum for the poor. Upon arriving at the meager building, Luce placed his hand on the door and said, “poor little poor house, I christen thee the United States Naval War College.”⁵³

EMORY UPTON

Emory Upton graduated from the U.S. Military Academy at West Point in 1861 and was involved in the First Battle of Bull Run only a few weeks later. Perhaps due to the disastrous results of that battle, Upton was wholly unimpressed with the state of the U.S. Army, and his

⁵⁰ Hattendorf, et al., *Sailors and Scholars*, 19.

⁵¹ Gleaves, *Life and Letters of Admiral Luce*, 175.

⁵² Gleaves, *Life and Letters of Admiral Luce*, 176.

⁵³ Gleaves, *Life and Letters of Admiral Luce*, 178–9.

initial assessment bears a striking resemblance to Luce's assessment of the navy at the same time. Upton wrote that the army he entered "presented to the world the spectacle of a great nation nearly destitute of military force."⁵⁴ The regular army was entirely unprepared to execute a major war and meet the various demands the Civil War would ultimately present. The U.S. army eventually adapted to the new environment of warfighting, but Upton never forgot the disappointment and frustrations he initially experienced. First an artillery officer and then ultimately a regimental commander in the Civil War, Upton distinguished himself in the Civil War by developing innovative tactics and training others how to employ them, earning particular notice at the battle of Spotsylvania.⁵⁵

Rapid advancements in technology resulted in a high casualty rate during the Civil War. While the army made adjustments, they were haphazard and avoided the laborious work of completely reworking tactics to fit the modern environment. But Upton was up to the task. He focused on rifling and its impact on the employment of artillery. In the Wilderness Campaign, he dedicated a great amount of time to devising a new drill system, which would allow attackers to employ maximum firepower while simultaneously exposing themselves to artillery fire as minimally as possible. After the war, Upton's brilliance for tactics continued to be a hallmark of his career. In 1866, he petitioned the army to form a board to consider adopting his new system of tactics. The department formed a board at West Point and appointed Upton to train cadets on his system, which he did for the following eighteen months. In January 1867, the board unanimously voted to adopt Upton's tactics system.⁵⁶

A few years later, Upton became Commandant of Cadets at West Point where he also taught tactics for infantry, artillery, and cavalry. During his time there, Upton meticulously

⁵⁴ Ambrose, *Upton and the Army*, 16–17.

⁵⁵ Ambrose, *Upton and the Army*, 59.

⁵⁶ Ambrose, *Upton and the Army*, 58–62.

managed the discipline and administration of the cadets while constantly reading and making improvements in tactics.⁵⁷ Most of his five years at West Point were fairly routine and uneventful, but a highlight of his time was when the Secretary of War instructed Upton to bring the Corps of Cadets to Washington for the second inauguration of President, and former Commanding General of the Army, Ulysses Grant.⁵⁸ While escorting the cadets to Washington, Upton officially met General Sherman, who by then was Commanding General of the Army. Upton brought the cadets to Sherman's home where Sherman, along with other generals, inspected the cadets and observed their dress parade; afterwards they attended a reception in Sherman's home. Shortly after the visit, Sherman sent Upton an autographed copy of his reflections on the Civil War, an autobiography titled *Memoirs*. Upton and Sherman began corresponding and developed a relationship built on mutual respect, admiration, and passion for the army.⁵⁹

Upton's relationship with Sherman was instrumental in securing Upton's legacy for the army. They interacted due to their official responsibilities and corresponded frequently between meetings. Sherman was in favor of reforms in education and tactics for the army, but he personally did not have the time or the temperament to devote to either subject. He found in Upton an able candidate to develop these reforms, having already had success with his tactics system. Additionally, Upton and Sherman shared a similar distrust of civilian control of the military. Both saw professionalizing the military as a way to free the military from what they saw as civilian overreach into military affairs and began pursuing means to achieve reforms to this effect.⁶⁰ They strongly believed that the control of the military should be in the hands of

⁵⁷ Ambrose, *Upton and the Army*, 71.

⁵⁸ Ambrose, *Upton and the Army*, 75.

⁵⁹ Ambrose, *Upton and the Army*, 75–6.

⁶⁰ Ambrose, *Upton and the Army*, 76.

trained professional soldiers, and viewed professional military education as a way to achieve that end. Sherman wrote to his brother, Senator John Sherman, that politicians should “[l]et those who are trained to it keep the office and keep the army and navy as free from politics as possible.”⁶¹

The relationship was mutually beneficial. Upton benefitted from the relationship with Sherman through advancement and elevated responsibilities in the army.⁶² Upton wrote to Sherman in 1874, summarizing a conversation they had when Sherman visited Upton at the West Point and reminding Sherman of Upton’s desire to travel abroad to survey other militaries and assess their training systems.⁶³ This was a trip similar to the one Sherman had been ordered to go on in 1849, but circumstances beyond his control had prevented him from going. Upton wrote of the significant changes that had occurred since the Franco-Prussian War, and that he saw great value in assessing these changes more intimately for application to the army. In Upton’s words, “[E]verything belonging to the improvement and organization of the victor is the subject of admiration and is eagerly sought after as a model.”⁶⁴

Upton’s lobbying was successful. Following his service at West Point, Sherman sent Upton on a tour of the world to examine foreign militaries, their organizations, and training. Upton visited the militaries of Japan, China, India, Italy, Russia, Austria, France, and Britain, where Upton was greeted cordially and assisted in observing the different functions he requested.⁶⁵ Upton took seven key findings away from his tour that he thought worth implementing in the army. Interestingly, none of the findings relate to tactics, which was his

⁶¹ William Sherman and John Sherman, *Correspondence Between General Senator Sherman from 1837 to 1891* (New York: Charles Scribner’s Sons, 1894), 340.

⁶² Ambrose, *Upton and the Army*, 76.

⁶³ Peter Michie and James Wilson, *The Life and Letters of Emory Upton, Colonel of the Fourth Regiment of Artillery, and Brevet Major-General, U.S. Army* (New York: D. Appleton and Company, 1885), 349.

⁶⁴ Michie and Wilson, *Life and Letters of Emory Upton*, 349.

⁶⁵ Michie and Wilson, *Life and Letters of Emory Upton*, 192.

original motivation for going on the trip. The seven findings were: first, a three or four battalion system for infantry regiments; second, a system of detail where officers alternate between staff and line duty; third, performance reports on officers; fourth, examinations for promotion; fifth, schools for enlisted men; sixth, preparatory schools for all those seeking commissions; and seventh, schools for officers in the art of war and the high branches of their profession after commissioning.⁶⁶

Upton published his findings in a book titled *The Armies of Europe and Asia*. Despite the title, the majority of the focus largely centers on European militaries and lessons learned from them. Military historians debate if the omission of Asian militaries was an honest mistake on Upton's part, or if he was motivated by xenophobic and possibly racist sentiments. Another faction argues that these accusations are overblown given that, however minor, Upton took lessons away from each country he visited.⁶⁷ An alternative view is that at the time both the Japanese and Chinese armies were notably less influential than their European counterparts and that Upton simply considered them to be of inferior quality.⁶⁸ Based on the relative strength of the Japanese and Chinese militaries at that time, there is validity to his criticisms. While the intent is not to adjudicate this debate, its existence is relevant for providing insight into Upton's mindset and his approach to concepts that could be considered foreign to him. At worst it indicates a kind of close-mindedness in Upton's approach and, at best, implies a certain tunnel vision through which Upton viewed other militaries, systems, and ideas. In fairness, Upton's assumptions reflected the majority of his audience who similarly would not have paid much attention to Asian militaries at the time. However, this attitude is a notable contrast to Luce's curiosity and openness to a variety of influences, sources, and methods.

⁶⁶ Michie and Wilson, *Life and Letters of Emory Upton*, 192.

⁶⁷ Michie and Wilson, *Life and Letters of Emory Upton*, 193.

⁶⁸ Ambrose, *Upton and the Army*, 98.

Upton returned from his tour of the world with a renewed vigor for reform. He examined the curriculum at West Point and found that the institution met the requirements for pre-commissioning military education. His assessment bore a striking resemblance to Luce's characterization of professional military education. Upton wrote that the curriculum fell short in giving cadets "the means of acquiring a theoretical and practical knowledge of the higher duties of their profession."⁶⁹ Among his many proposals, Upton, like Luce, recommended the establishment of a general staff, similar to the Prussian model, and a system for educating officers that closely mirrored the professional institutions he saw in Europe.⁷⁰ Combining his experience from the Civil War and his tour of Europe, Upton was wholly dissatisfied with the citizen-soldier model on which the U.S. military was built. Accordingly, he specifically advocated for the army to develop a professional military education to build the caliber of military expertise required for national defense.⁷¹

In 1876, Upton got the opportunity to put his recommendations to the test when he was appointed to the Artillery School of Practice at Fort Monroe, still the nation's only postgraduate military institution. During his tenure, Upton continued to pursue the reforms he believed in so deeply by developing a study of all of the United States' wars from the Revolution onward. His motivation for this project was to show that, in his view, the U.S. had entered every war it ever fought unprepared, and how a professionalized military could prevent this from happening in future conflicts.

⁶⁹ John W. Masland and Laurence I. Radway, *Soldiers and Scholars: Military Education and National Policy* (Princeton, NJ: Princeton University Press, 1957), 81.

⁷⁰ Upton developed ideas about formal professional military education before Luce, but the Army did not immediately implement them until establishing the Army War College in 1901. Luce adopted the ideas and led the Navy to have the country's first War College established in 1883.

⁷¹ William Donovan and Lynn Burlbaw, "Aiming For Educated Officers: Curriculum Evolution in Early Professional Military Education in the United States 1880–1914," (MA Thesis, Texas A&M University, 2007), 4.

In *The Armies of Europe and Asia*, Upton argued that, “the success which had already attended the Artillery School suggests that we should establish schools, with similar constitution, for the infantry and cavalry—one to be located at Atlanta and the other at Fort Leavenworth.”⁷² Having witnessed Upton’s successful leadership of the Artillery School of Practice, Sherman agreed that the army needed similar institutions for the cavalry and infantry officers. Moreover, Upton’s recommendation coincided with that of other senior army officers recommending the establishment of a school for officers at Fort Leavenworth. General John Pope in particular thought Leavenworth was the ideal location due to its central location, the large size of the installation, and the variations in terrain for practical instruction. While Upton and Pope differed on instructional methods, they were in agreement that Fort Leavenworth would be an optimal location for the new applied schools.⁷³

While Upton’s professional work was instrumental in the establishment of the Leavenworth schools, both through his leadership at the Artillery School at Fort Monroe and his advocacy and influence through publishing *The Armies of Europe and Asia*, he never saw the school’s establishment during his lifetime. Following his assignment at Fort Monroe, Upton was assigned to command an artillery unit at the Presidio of San Francisco in 1880. While there, Upton continued working on his project summarizing U.S. wars from the Revolution through the contemporary era, but he never finished it. It was published posthumously as *The Military Policy of the United States*.⁷⁴ After suffering from severe headaches that many now believe to be caused by a tumor, Upton ended his life by shooting himself in the head in 1881—the same year the School of Application for Infantry and Cavalry began at Fort Leavenworth.

⁷² Emory Upton, *The Armies of Europe and Asia: Embracing Official Reports on the Armies of Japan, China, India, Persia, Italy, Russia, Austria, Germany, France, and England* (London: Griffin & Company, 1878), 366.

⁷³ Timothy K. Nenninger, *The Leavenworth Schools and the Old Army: Education, Professionalism, and the Officer Corps of the United States Army, 1881–1918* (Westport, CT: Greenwood Press, 1978), 21–2.

⁷⁴ Ambrose, *Upton and the Army*, 149–55.

THE SCHOOLS

While both Luce and Upton were innovative in their approach to professional military education, the concept of formal education was not new to other militaries. One of the first versions of Professional military education was the Prussian Kriegsakademie, established in 1810 as a military reform initiative following Prussia's defeat by Napoleon. Carl Von Clausewitz, the famous military theorist, served as the head of administration at the Kriegsakademie in its early years. Similarly, Britain created the British Staff College in 1858, also part of a larger military reform effort following the Crimean War. In 1870, France opened the Ecole Superieure De Guerre in response to the war with Prussia.⁷⁵ Luce and Upton were both heavily influenced by the Prussian military model—Upton from his own study and Luce from Laughton and Upton's influence.⁷⁶ They also looked to a variety of sources including their international counterparts as they endeavored to create a formal military education system for their respective services.

The late nineteenth century was also a time of technological transformation for navies. Fully embracing the modern navy of steel ships, steam power, and engines and machinery, Luce recognized that education was an integral part of the proper management and execution of this technology. His view was not widely shared. Shore duty officers were busy with maintaining and inspecting ships, engines, and guns, and many naval leaders saw going to school as a distraction from the more important task of mastering emerging technologies.⁷⁷ Nevertheless, Luce did not give up on the notion of naval education.

The Naval War College's modest beginnings were indicative of the navy's indifference to its existence. Luce was on his own to acquire the basic necessities for the school like lamps, chairs, desks, and some coal for heating. True to the curriculum's emphasis on naval history, a

⁷⁵ Donovan and Burlbaw, "Aiming For Educated Officers," 2–3.

⁷⁶ Ambrose, *Upton and the Army*, 83.

⁷⁷ Gleaves, *Life and Letters of Admiral Luce*, 173.

map of the battle of Trafalgar adorned the wall of the modest classroom. Although the school had received approval from the Secretary, many in leadership positions in the navy largely saw the age of sail as a bygone era and the study of historical battles fought in this period as not applicable to modern naval conflict. These critics advocated an intuitive approach and claimed that the art of war could not be taught. In contrast, Luce contended that the overarching principles of the art of war transcended the specific details of the time, recognizing the impact that the study of war had had on the British Navy and Napoleon. Fueling the critics, the first class of the Naval War College consisted of only eight students, far short of Luce's recommendation of fifty. All were lieutenants and most came from the navy's Torpedo School on Goat Island, just across Newport harbor.⁷⁸

The first curriculum for the Naval War College consisted of lectures on tactics, strategy, international law, and military history. The faculty for the first course consisted of an army Lieutenant, Tasker Bliss, who lectured on military tactics and strategy, and James Russell Soley, a civilian lawyer and professor at the Naval Academy, who taught the international law course.⁷⁹ Luce also hired Alfred Thayer Mahan, who would later become a famous naval theorist; however, Mahan was unable to arrive in time for the first session of the Naval War College due to complications from being relieved from his sea duty.⁸⁰ Not one to waste the opportunity, Mahan spent the year before his arrival preparing lectures for when he would arrive at the Naval War College.⁸¹ Critics of the school made light of the fact that the only full-time faculty member of a navy school was an army lieutenant. To Luce's credit, he saw the interrelationship of army

⁷⁸ Gleaves, *Life and Letters of Admiral Luce*, 172, 179–80.

⁷⁹ James R. Soley spent two years conducting the first formal examination of the Royal Naval College in Greenwich, England, as well as naval education systems in France, Italy and Germany, and published his findings in the *Report of Foreign Systems of Naval Education* in 1880. Also influential in professional military education, Army General Tasker Bliss was the first uniformed faculty member at the Naval War College in 1885-1886 and was a prominent figure when the Army War College was established, serving as its president in 1903 and 1909.

⁸⁰ Gleaves, *Life and Letters of Admiral Luce*, 180.

⁸¹ Hattendorf, et al., *Sailors and Scholars*, 23.

and naval tactics and strategy and employed members from the army to highlight these similarities and overarching principles.

The first course of the Naval War College also included several guest lecturers from the army including General J.C. Palfrey, who lectured on the Peninsula Campaign of 1862, General George Gordon, who lectured on the Grant's campaign in Virginia during the Civil War, and John Ropes, a civilian historian who lectured on Grant's battles of Cold Harbor and the Wilderness. Despite criticism about utilizing army officers for instruction, the army and navy agreed to allow Lieutenant Bliss to remain on faculty at the War College. In June 1886, Admiral Luce was ordered back to sea duty. Prior to his departure, he planned the lectures for the second term and handed the school over to Captain Mahan who arrived that August. Luce eagerly monitored the progress of the Naval War College, doing whatever he could to aid its advancement and defend it against critics.⁸²

The army's approach to professional military education benefitted from General Sherman's symbiotic relationship with Emory Upton. Acting on Upton's recommendation to establish similar applied schools to the artillery school, Sherman issued General Order 42, on May 7, 1881, establishing the School of Application for Infantry and Cavalry at Fort Leavenworth, which would later become the Army Command and General Staff College.⁸³ The order directed that the new school of application would consist of one lieutenant from each of the army's infantry and cavalry regiments and that the faculty would consist of a school commander and five instructors. Further, in contrast to the navy's meager beginnings, the order stated that the army would pay the expenses of the school with the exception of textbooks and paper, which

⁸² Gleaves, *Life and Letters of Admiral Luce*, 180–3.

⁸³ Donovan and Burlbaw, "Aiming For Educated Officers," 5.

officers would pay for out of their own funds.⁸⁴ The opening of the school would fall to General Philip Sheridan, currently serving as the Commander of the Division of the Missouri, and his immediate subordinate, Major General John Pope, who had recommended Fort Leavenworth's location for the schools. Sherman outlined his intentions for the school of application's curriculum in a letter to Sheridan on November 22, 1881:

I want this new school to start out with the doctrine that service with troops in the field, in time of peace, is the most honorable of all, and the best possible preparation for high command when war does come, as it always does, suddenly. The school should form a model post like Gibraltar with duty done as though in actual war, and instruction by books be made secondary to drill, guard duty, and the usual forms of a well regulated garrison.⁸⁵

The relationship Sherman had with formal education was full of contradictions. While he championed the school at Leavenworth's existence, he believed, "war is the only real school for war."⁸⁶ Leavenworth would be his model outpost for education, where students would carry out their duties as though in times of war with reveille, guard mount, dress parades, retreat, tattoo, and taps. Yet in the first address to the School of Application, Sherman asserted that those aspiring to high command and staff positions required broad military and educational experience, including reading, mathematics, chemistry, geology, and law.⁸⁷ Further, in the same letter to Sheridan where he outlined his ideas for the school, Sherman claimed the school doctrine rested on the premise that service with soldiers in peacetime was the most honorable duty and the best preparation for high command in time of war.⁸⁸ It is possible that this claim was more in

⁸⁴ United States Army General Orders Number 42, May 7, 1881, printed in Elvid Hunt, *History of Fort Leavenworth, 1827–1927* (Fort Leavenworth, KS: The General Service School Press, 1926), 160.

⁸⁵ Letter from General William Sherman to General Philip Sheridan, November 22, 1881, printed in Hunt, *History of Fort Leavenworth*, 159.

⁸⁶ Nenninger, *The Leavenworth Schools*, 22–3.

⁸⁷ William Sherman, *Address to the School of Application* (Fort Leavenworth: School of Application, 1882), 1-13, referenced in Nenninger, *The Leavenworth Schools*, 5.

⁸⁸ Letter from General William Sherman to General Philip Sheridan, November 22, 1881, letterbook 95, William T. Sherman Papers, Library of Congress, referenced in Nenninger, *The Leavenworth Schools*, 23.

reference to his idea that the nation needed professional soldiers preparing for war than his previously expressed opinion that war is the best preparation for war. Regardless, Sherman's views on education were contradictory and, at times, uneven.

He also confessed that his motivations for founding the school were not merely academic, telling Sheridan that the school was "a concession to the everlasting demands of friends and families to have their boys detailed to Signal duty, or to the School at Fort Monroe to escape company duty in the Indian country. The School at Leavenworth may do some good, and be a safety valve for those who are resolved to escape from the drudgery of garrison life at small posts."⁸⁹ Going further, the choice of lieutenants for the student body appeared inconsistent with Sherman's stated intention of the school's mission being the preparation of officers for high command. The junior officers assigned to the school were those with the greatest need to develop competence in executing tactics, not strategy. Accordingly, Sherman's emphasis (at least in his opening remarks to the school at Leavenworth) on a broader military education made little sense for the target audience and actually detracted from their professional requirements. At least one historian has speculated that Sherman may have formed the school more as an experiment than in a firm belief that the school was integral to accomplishing the army's strategic education needs.⁹⁰

Nevertheless, the school's first commander, Colonel Elwell Otis, immediately went to work organizing and staffing the school in preparation for the first class of officers. He drafted a code of regulations for the school and submitted it to the War Department. Sherman promptly rejected them and directed the creation of a revised version, which placed drill and discipline at the front and center of the school's curriculum. An applied and practical approach would be the

⁸⁹ Letter from General William Sherman to General Philip Sheridan, July 31, 1881, letterbook 95, William T. Sherman Papers, Library of Congress, referenced in Nenninger, *The Leavenworth Schools*, 23.

⁹⁰ Nenninger, *The Leavenworth Schools*, 23.

schools primary focus with “theoretical instruction,” like mathematics, topography, and history, as secondary and “the science and practice of war” as third in priority.⁹¹

Sherman recognized that while his initial order required geographical diversity for the student body, it made no specifications as to their background or intellectual acumen. Accordingly, he outlined a two-track program. New students would be evaluated upon arrival by the faculty and placed in one of two classes. Both classes would receive the primary instruction of drill and discipline, but those in the first class would also receive the instruction in the “science and practice of war.” Those students lacking the academic background to be in the first class would complete an additional year of remedial study that they should have received prior to commissioning, including the basics of reading, writing, mathematics, and history. While this appears straightforward, the school struggled with *how* to classify the incoming students, as there was a diversity of quality in the students sent to the School of Application. Some regimental commanders sent their best, including some West Point graduates, while others sent their biggest troublemaker whom they were anxious to pass off. The school staff worked collectively to examine and classify these students, but ultimately it took a few years for the faculty to standardize properly and consistently classifying the incoming students.⁹² The course quality of the second class was deemed of such a remedial nature it earned the pejorative nickname “kindergarten,” which even Colonel Otis admitted was a fair characterization.⁹³

The curriculum of the first class included Dennis Mahan’s *Outposts and Field Fortifications*.⁹⁴ It also included standard instruction in Signaling, International Law and Laws of

⁹¹ Nenner, *The Leavenworth Schools*, 23–4.

⁹² Nenner, *The Leavenworth Schools*, 24–25.

⁹³ Inspection report by Colonel Otis, September 24, 1882, file 1062/82. Letter Received by the Inspector General’s Officer, RG 159, National Archives and Records Administration [hereafter NARA].

⁹⁴ Dennis Mahan was the father of Alfred Thayer Mahan, the naval theorist and second president of the Naval War College.

War, Military Law, Operation of War, and the Lessons of War. Professors delivered lectures, students prepared essays from general reading, and there was, of course, practical instruction in surveying by itineraries and field notes. The “kindergarten” curriculum included: correct reading aloud (specifying “with care and precision, proper accent and pauses, to be heard and understood”), writing (specifying in “plain hand, easy to read, designed for the use of the party receiving and not an exhibition of haste and negligence of the writer, especially the signature”), grammar, arithmetic, geometry, trigonometry, a general sketch of history, and history of the United States.⁹⁵

The first six years of the school were characterized by complications that stemmed from the inconsistencies under which it was founded. The “kindergarten” spent much of its energy correcting basic educational shortcomings at the expense of military instruction. As many in the second class were marginal officers, even the military instruction they received was hardly worth the effort. Even for the first class, the military instruction (which was primarily tactical in focus) was extremely simplistic and included recitations from books that were becoming obsolete like Mahan’s *Outposts*, which was written prior to the Civil War. The practical course of study rarely went beyond the company level, and ultimately defaulted to preparing the junior lieutenants for the demands of their company grade posts versus any higher aspirational course of study.⁹⁶ Nevertheless, all students completing their exams at the end of the first year, in July 1882. General Pope and Colonel Otis petitioned the War Department to expand the school, but Sherman cautioned against “pushing this school into the clouds.”⁹⁷

⁹⁵ Donovan and Burlbaw, “Aiming For Educated Officers,” 6–7.

⁹⁶ Nenninger, *The Leavenworth Schools*, 26.

⁹⁷ Adjutant General to General Pope, October 4, 1882, file 4062, RG 94, NARA.

THE SCHOOLS COMPARED

One obvious similarity between the Naval War College and the school at Fort Leavenworth is that both came into existence in an effort to create a professionalized approach to developing officers in their respective services. Both the army and navy were operating in the post-Civil War period where the nation was generally tired of war and either indifferent to or critical of many of the changes the army and navy proposed. In starting the new institutions, both services faced challenges. Luce was left almost entirely to his own devices to provide a classroom environment for his students and ran short on instructors and students; he also had to contend with uncooperative naval leadership. The army lacked clarity in exactly what it was trying to achieve with the school at Leavenworth, and it struggled to select the appropriate level of officer to attend its educational program.

Their founders shared some similarities as well. Both were shaped by their experience in the Civil War. Both noted the need for professionalization in their services, and both saw a formal education and training program as instrumental to accomplishing that professionalization. Both men were also assigned to their service's military academies where they gained first-hand knowledge of the challenges of military education.⁹⁸ Further, Luce and Upton were highly influenced by their international counterparts who had proven their military prowess in the late nineteenth century. Additionally, both made significant academic contributions to their respective services through publishing pieces for professional publications like the *Army and Navy Journal*. Finally, both reformers credit General Sherman for inspiring their reforms, though there were key differences in the character of that influence, which will be addressed later.

Ultimately, though, the schools and their founders were more different than they were similar. Upton's experience in the Civil War set him apart as a tactician. Highly innovative and

⁹⁸ Gleaves, *Life and Letters of Admiral Luce*, 106.

creative, he quickly distinguished himself through tangible and tactical approaches to address the challenges the army was facing during the war. Even later in his career when Upton was assigned to be the Commandant of Cadets at West Point, he not only taught tactics for infantry, artillery, cavalry, but he spent much of his time refining these relatively narrow tactical theories for his lectures.⁹⁹ Upton lobbied the army to adopt his proposed tactics formally, and taught these tactics at West Point and, later, the Artillery School of Practice at Fort Monroe. Accordingly, Upton's writings and overarching professional contribution to the army focused primarily on *training* because that was what was needed to implement new tactics. The exposure to international military education sparked a new fire for reform in Upton, and he expanded his focus to include administration and education following this exposure. Yet he ultimately remained highly detail-oriented, focused on tangible approaches, and wrote and studied tactics when he had the opportunity. Upton's publications including *The Armies of Europe and Asia* and later *The Military Policy of the United States* indicate that his experiences traveling the world elevated his views beyond tactics and the practical approach, but this did not occur until later in his career and, unfortunately, did not fully come to fruition.

In contrast, Luce took a broader approach, focusing less on training and more on education. He had opinions about all aspects of naval education from rudimentary training through to grand strategy. To borrow Isaiah Berlin's famous framework, Upton was a hedgehog who knew one thing—tactics—and Luce was a fox who knew many things. Luce's experience at the Naval Academy informed his initial idea of what fundamental military education should entail. While he was assigned to the navy's commissioning source, he revised the academy's textbooks. In contrast to a focus on tactics, Luce's overall impression of that experience was that the army possessed a far greater body of literature than the navy and that the navy desperately

⁹⁹ Ambrose, *Upton and the Army*, 71.

needed more professional content to fuel its military objectives.¹⁰⁰ This informed his notion of the Naval War College, where he focused instead on larger themes, like the employment of changing technology. Luce continued to emphasize creating a framework for new and emerging problems that required understanding principles over employing predetermined procedures. Luce's main takeaway from Sherman was the concept of a "military problem"; a more tactically oriented officer perhaps would have taken the lesson of the significance of the lines of communication to accomplishing a military objective, but Luce saw the employment of what today would be known as "combined arms."

Undoubtedly, part of the differences between the ways these men approached military education derived from their divergent personalities. Upton was notably detail-oriented and preferred established ways of doing things. Historians describe him as largely asocial, "to the point of being acutely uncomfortable with civilians."¹⁰¹ Generally, Upton was perceived to be a difficult personality. As the controversy surrounding his oversight of Asian military practice indicates, he was somewhat close-minded to methods and approaches he deemed too foreign by praising the Asian militaries only as much as they imitated European militaries and criticizing the ways in which they were different. His omission of Asian military expertise indicates a lack of intellectual curiosity. Even though, in Sherman, Upton had a more powerful mentor and champion than Luce did, Upton struggled to get his views across because he tended to present them in a negative fashion that was generally off-putting to his audience.¹⁰² There is little evidence to suggest his professional network extended beyond army colleagues and Admiral Luce, who, remember, sought Upton out rather than the other way around. Coupling Upton's

¹⁰⁰ Stephen Luce to C.P.R Rogers, Commandant of Midshipmen, 26 February 1861, Luce Papers, LC, printed in Hayes and Hattendorf, *Writings of Stephen B. Luce*, 8.

¹⁰¹ Ambrose, *Upton and the Army*, 3.

¹⁰² Ambrose, *Upton and the Army*, 98, 124.

proclivity for the tactical and a prevailing culture resistant to new ideas, it is not altogether surprising the army schools reflected a narrow and applied approach to education. Perhaps the most succinct description of Upton was that penned by William C. Church, following Upton's death, who wrote in the *Army Navy Journal*: "Upton was a man of excitable nature who showed a certain intensity of energy which led him into a good deal of worry when he did not see the way directly to the accomplishment of an object."¹⁰³

In contrast to this description, Luce spent most of his career seeing ways to accomplish his objects. Throughout his career, Luce sought to solve a variety of problems at all levels, from the tactical to the operational, and strategic. From his assignment at the Naval Academy, Luce recognized the value of advocacy for accomplishing strategic ends. He built a prolific network of colleagues both within the U.S. and in Britain, learning a great deal from John Knox Laughton. Despite the tension between the army and navy, Luce wasted no time in building bridges with his sister service and he never turned down an opportunity to learn or share a best practice. While he experienced many setbacks in pursuit of establishing the Naval War College, his writings do not indicate that he gave in to negativity, burned bridges, or was deterred from the importance of the mission he set out to accomplish.¹⁰⁴ Even with the disappointment of spending only the first year at the Naval War College, Luce continued to champion the institution and brokered professional relationships between Alfred Thayer Mahan and John Knox Laughton that ushered the American theorist onto the global stage of naval strategy.¹⁰⁵ Given the general indifference the navy showed toward professional military education, it is difficult to imagine that anyone else could have been so committed to the vision of the Naval War College and could have so tirelessly seen

¹⁰³ William C. Church, "Suicide of General Upton," *Army Navy Journal*, March 19, 1881, 677.

¹⁰⁴ Luce's spouse destroyed personal letters that may have indicated otherwise, but his remaining professional writings do not contain any indication of negativity.

¹⁰⁵ Hayes and Hattendorf, *Writings of Stephen B. Luce*, 33.

it to fruition as Luce. Bradley A. Fiske's obituary of Luce in the *Proceedings* of the U.S. Naval Institute captured Luce's legacy:

“Luce taught the navy to think, to think about the navy as a whole...More clearly than any other man in American history he saw the relations that ought to exist between the central government and its military and naval officers...Luce saw strategy as clearly as most of us see a material object. To him, more than any other officer who ever lived are naval officers of every nation indebted for the understanding they have of their profession.”¹⁰⁶

Luce's personality was indispensable to the creation of the Naval War College. His tenacity, open-mindedness, and penchant for lifelong learning carried the Naval War College from a faint dream to a bold reality.

The difference between the two schools is also a product of the climate in the army and navy. The army was engaged in a concrete problem—fighting Native Americans in the Dakotas—which lent itself to a concrete training approach. The navy was engaged in a conceptual problem—advocating for its significance in an era of postwar cuts—which required a more abstract and philosophical approach to education. Even the mere existence of a navy is a more strategic question for a nation than that of the army. While an army can be utilized in a national defense role for internal governance and protection, the possession of a navy is one that requires a nation to ask itself what it desires to be on a global scale. Participating in a thriving world economy requires the maritime protection of shipping that navies provide. Naturally, the difference in the roles a service provides to their nation requires different institutional thinking on their part.

In the 1880s, the U.S. was contending with rapid technological advancements that quickly altered the requirements for naval dominance and demanded new expertise. The speed of

¹⁰⁶ Bradley A. Fiske, “Stephen B. Luce: An Appreciation,” U.S. Naval Institute *Proceedings* Vol. 43 (1917): 1935–40.

innovation was so rapid that new equipment was sometimes rendered obsolete from the moment it was put into operation at sea. Luce, among others in the navy, recognized the inevitability of technology and the need for naval professionals to learn, engage, and execute the use of this technology to their strategic advantage. He saw education as a way to make this a reality. Accordingly, Luce argued that the most important education naval officers could obtain was one that developed their understanding of the nature, purpose, and use of navies—an education that transcended the latest and greatest technological innovation. He encouraged his fellow officers to think broadly and historically in an era when it was all too easy to think narrowly and tactically.¹⁰⁷

The focus of senior leadership at the time also shaped the war schools. The overwhelming influence in the army at the time was General Sherman. He was impressed with Upton's work at the Artillery School of Practice, and he saw the practical use of employing it for other army branches. Having one school as a template inherently provided a default template for the army's approach to education. In contrast the navy had no such institution, and once Luce was able to convince naval leadership of its purpose and value, he had much more control and influence on what the curriculum should entail. Generally speaking, Luce did not contend with one particular critic or ally in the navy during his tenure, but instead sought to address what were growing trends in naval attitudes toward education.

While both Luce and Upton credited Sherman's influence, Sherman had a much closer relationship with Emory Upton. Given the brevity of Luce's interaction with Sherman, it is fair to say that Luce had Sherman as an inspiration, whereas Upton had a mentor in Sherman who provided considerable influence. Confusingly, Sherman was full of contradictions about military education. On one hand, he is often praised as a reformer who sent Upton on the tour of the

¹⁰⁷ Bradford, *Admirals of the New Steel Navy*, 11-12.

world to glean lessons from foreign militaries, yet he also forbade Upton (and subsequent Commandants of West Point) from making any changes to the curriculum.¹⁰⁸ While Sherman championed the School of Application for Infantry and Cavalry at Fort Leavenworth, he was no less contradictory when it came to the school's role. On the one hand, the school provided a centralized way to professionalize these branches within the army, yet Sherman expressed apprehension about military science by stating the curriculum should focus on duty in war first, and instruction from books as secondary. Further demonstrating the contradiction was its location, which suggested it was intended as a respite from the ongoing campaigns in the Dakotas.¹⁰⁹

Sherman also had other motivations for army reforms. In some ways, he had a strong commitment to military professionalism, but much of that was rooted in his belief that the army should be run by professional military officers, not politicians. This made relationships with political appointees contentious after the war. Critics contended that volunteers could do the job of professionals, so Sherman struggled to orient the army towards what it could become rather than what it had been. While the establishment of the school at Leavenworth and his patronage of Upton would be instrumental to long-term reform in the army, there is almost no proof that this was his intention. If anything the evidence points to his deeply held belief that professional soldiers should control the army and not politicians, and the professionalization of the army was the means to make this case compelling.¹¹⁰

¹⁰⁸ John Marszalek, *Sherman: A Soldier's Passion for Order* (New York: The Free Press, 1993), 441–2.

¹⁰⁹ Letter from General William Sherman to General Philip Sheridan, July 31, 1881, letterbook 95, William T. Sherman Papers, Library of Congress, referenced in Nenninger, *The Leavenworth Schools*, 23.

¹¹⁰ Marszalek, *Sherman*, 443.

CONCLUSION

There are three key lessons the modern military can take from the post-Civil War era. First, it is critical to consider carefully the most fundamental, existential questions a service can ask itself. What is its purpose in the nation's grand strategy? Second, as Admiral Luce's relentless advocacy proves, the periods between conflicts present many challenges in raising the necessary support for the military reforms the next conflict requires. Third, reforms to military education are vital to providing the framework to answer the required questions in the future warfighting environment.

While both services were attempting to address different problems—the army seeking to solve a tangible, continental problem and the navy working through strategic issues of national identity—they were both looking toward the future while learning from the past. Accordingly, thinking critically about the existential questions of the modern military requires carefully examining the lessons of counterinsurgency operations in the Middle East and projecting those larger lessons towards future warfighting in an era of Great Power competition. Just as Luce's encounter with Sherman had broader implications for warfare than merely the significance of communication lines to sustaining Charleston, there are broader lessons to be gained from counterinsurgency. Asymmetric warfare against non-state actors changed the definition of success in military conflicts, which has significant implications for warfighting domains like space and cyberspace. Instead of formal surrenders at Appomattox, success now looks like commanding the metaphorical uncommanded sea as a factor of time and space—disrupting, degrading, and deterring the adversary while simultaneously recognizing the successful accomplishment of these components does not inherently mean the adversary ceases to participate in these domains. Further, counterinsurgency demonstrated that our adversaries are

increasingly reliant on commercial technology. Going forward, as private and commercial industry continue to interweave with the space and cyber domains, it will be imperative to shift the institutional military thinking from *military* problems toward *whole-of-society* warfighting problems, where the solutions do not only include military responses like the navy took towards the Charleston bombardment, and seek to partner with private industry, when appropriate, for broader solutions to asymmetric problems like Sherman did by cutting the communication lines.

Additionally, the periods between conflicts, both historically and today, present many challenges in raising support necessary to enact the military reforms the next conflict requires. Admiral Luce's example proves that these efforts are worthwhile and can pay dividends long into future, unforeseen conflicts if done correctly. As the navy sought to enhance its role as a standing professional service, championed by theorists like Mahan, it fought against the current of indifference and skepticism to rethink the previous organizational military construct of a skeleton navy. Similarly, the Department of Defense has seen the advent of the new U.S. Space Force, and it would be wise to consider a more prominent role for cyberspace organizations along with other emerging technologies like artificial intelligence, electromagnetic spectrum operations, information operations, military information support operations (formerly psychological operations), among others. Organizational structure will shape how these emerging technologies contribute to future conflicts. Going further, careful thinking about and deliberate organization in support of these technologies will yield great dividends when it comes to the consideration and employment of emerging technologies as part of joint operational planning. Numerous cyberspace senior leaders shared that institutional thinking surrounding cyberspace has greatly evolved in recent years, but the overreliance on kinetic warfare creates a latency that limits the full employment of cyberspace and other non-kinetic technologies. One of

the limiting factors that contribute to this latency is a widespread lack of understanding about cyberspace and technology that yields non-kinetic effects among current joint leaders.

A lack of understanding is indicative of an educational shortfall, which is why military educational reforms are absolutely essential to providing the framework for positioning the military to address emerging threats of the future warfighting environment. Modern professional military education must continue to adapt its thinking in terms of defining aggression and attribution in emerging domains like space and cyberspace. Also, in a climate of budgetary limitations, although nowhere near as severe as the post-Civil War period, modern defense leaders regularly contend with the dilemma of when cyberspace professionals should build software or when to purchase and modify commercial software, which offers cost savings, but at an ultimate cost of security. While a Future Warfighting Symposium is helpful, these topics should be formally integrated into the professional military education curricula. Rising defense leaders should be engaging and grappling with these challenging issues throughout their course of study and not as an area of novelty.

General Sherman's thinking about how to impose the Union's will on Charleston by severing its communications elevated Luce's thinking from a naval problem to a military problem. Similarly, modern educational reforms should aim to elevating student thinking from military problems to whole-of-society warfighting problems as well as from kinetic problems to non-kinetic problems. In order for rising leaders to engage effectively in multi-domain warfare, it is imperative that professional military education equips these leaders with a thorough framework to develop an understanding of each of the respective domains, with a growing emphasis on non-kinetic domains like cyberspace, and fuel the curiosity that drives self-study.

Admiral Luce's motivations for the founding of the Naval War College stemmed from his experiences in war and academia as well as his relentless curiosity and self-education. By and large, joint leaders outside of the cyberspace operations community are not advancing beyond a superficial understanding of cyberspace and non-kinetic warfare due to their highly technical nature. Yet military education reforms can be instrumental in bridging the gap of foundational understanding that bars so many from engaging in it at all or in rigorous self-study.¹¹¹ Army and navy leaders in the late nineteenth century had personally witnessed the catastrophic effects of underestimating or ignoring technological advances in the Civil War and sought to address their version of this challenge through a variety of ways, but one of the most significant ways was formalizing and professionalizing military education.¹¹²

Professional military education also provides a fertile environment to explore the talent management considerations that are equally critical to success in future warfighting environments as the understanding and management of technology. Luce and Upton both explored the administrative and organizational considerations of their services in conjunction with the technological advances of their time because they realized that technological advancement and effective talent management are inseparable. There is a tendency to look at technological problems as isolated from the human interaction with it, but there is a symbiotic effect between humans and technology that enables innovation to outperform one's adversary.

Thinking correctly about technology is just as important as the utilization of it. The Civil War resulted in massive casualties because senior leaders learned the wrong lessons from history. They studied tactics that were based on antiquated technology, and they failed to grasp larger historical ideas that might have better informed their decision-making. Modern senior

¹¹¹ General John N.T. Shanahan, e-mail to author, April 19, 2020.

¹¹² Bradford, *Admirals of the New Steel Navy*, 11–12.

service leaders have similarly misunderstood the employment of emerging technologies. They hindered non-kinetic warfare operations in past years past because they assumed cyberspace operations were mostly an issue of national strategic policy versus an agile warfighting tool for employment at the operational and tactical levels of war. In addition to expanding one's thinking on the character of warfighting, professional military education should also expand rising leaders' thinking about *who* should be the decision makers that can integrate technology for innovative warfighting (and how to identify, develop, and retain these leaders). Most likely, some of the leaders needed for future warfighting will have different developmental paths and occupational badges than those of contemporary leaders and will leverage their unique experience and perspectives for original and innovative solutions. Luce and Upton both recognized the significance that proper administration, promotion, and education would have on their respective services' ability to find innovative leaders who thought strategically, effectively adapted to new technologies, and achieved success in future warfighting environments.

While the army and navy took notably different approaches to education, both approaches had their merit and were the product of deliberate thought on how to best posture their respective services for success in the upcoming conflict. The army rightly developed curriculum that addressed specific and pressing challenges for the time, while the navy's approach to education expanded the model to also include strategic and historical considerations that provide a broader framework for addressing unknown challenges. The modern military needs both approaches to be successful in future warfighting and can do so by deliberately thinking about future warfighting and national issues, how best to maximize peacetime years for potential future conflicts, and by understanding the significant role professional military education has played and can contribute toward shaping the minds of future leaders.

Bibliography

- Ambrose, Stephen. *Upton and the Army*. Baton Rouge, Louisiana State University Press, 1964.
- Bradford, James. *Admirals of the New Steel Navy: Makers of American Naval Tradition*. Annapolis, MD: Naval Institute Press, 1990.
- Bradford, James. *America, Sea Power, and the World*. West Sussex, UK: John Wiley & Sons, 2016.
- Bradford, James. *Quarterdeck, Bridge, and the Pentagon: Two Centuries of American Naval Leadership*. Annapolis, MD: Naval Institute Press, 1996.
- Donovan, William R. and Burlbaw, Lynn. "Aiming For Educated Officers: Curriculum Evolution in Early Professional Military Education in the United States 1880-1914." MA Thesis, Texas A&M University, 2007.
- Dastrup, Boyd L. *The U.S. Army Command and General Staff College: A Centennial History*. Manhattan, Kansas: Sunflower University Press, 1981.
- Fox, Gustavus V. *Confidential Correspondence of Gustavus Vasa Fox – Assistant Secretary of the Navy 1861–1865 Volume 1*. New York: De Vinne Press, 1918.
- Gat, Azar. *A History of Military Thought: From the Enlightenment to the Cold War*. New York: Oxford University Press, 2001.
- Gleaves, Albert. *Life and Letters of Rear Admiral Stephen B. Luce*. New York, NY: G.P. Putnam's Sons, 1925.
- Goodspeed, M. Hill. *U.S. Navy: A Complete History*. Washington, DC: Naval Historical Foundation, 2003.
- Hattendorf, John B. "Luce's Idea of the Naval War College." *Naval War College Review* Vol. 37, No. 5 (1984): Article 6.
- Hattendorf, John B. and Hayes, John. *The Writings of Stephen B. Luce*. Newport, RI: Naval War College Press, 1975.
- Hattendorf, John B., Simpson, B. Mitchell, and Wadleigh, John R. *Sailors and Scholars: The Centennial History of the U.S. Naval War College*. Newport, RI: Naval War College Press, 1984.
- Hayes, John D. "Stephen B. Luce and the Beginnings of the U.S. Naval War College." *Naval War College Review* Vol. 23, No. 5 (1971): 51–59.

- Hunting, Samuel P. *Soldier and the State*. Cambridge: Harvard University Press, 1957.
- Lambert, Andrew, ed. *Letters and Papers of Professor Sir John Knox Laughton, 1830–1915*. (Publications of the Navy Records Society, 2002).
- Luce, Stephen B. “On the Relations Between the U.S. Naval War College and the Line Officers of the Navy.” U.S. Naval Institute *Proceedings* Vol. 37 (1911).
- Luce, Stephen B. “Talk on the History of the War College.” U.S. Naval War College Archives, Record Group 28, Box 2.
- Luce, Stephen B. “War Schools.” U.S. Naval Institute *Proceedings* Vol. 27 (1883).
- Luce, Stephen B. “Naval Administration, III.” U.S. Naval Institute *Proceedings* Vol. 29 (1903).
- Luce, Stephen B. “Letter on Naval Administration.” U.S. Naval War College Archives, Record Group 28, Box 2, 1858
- Luce, Stephen B. *Personal Journal*. U.S. Naval War College Archives, Boxes 1-5, Reels 1-3, 1842-1900
- Marszalek, John F. *Sherman: A Soldier's Passion for Order*. New York, NY: The Free Press, 1993.
- Masland, John W. and Radway, Laurence I. *Soldiers and Scholars: Military Education and National Policy*. Princeton, NJ: Princeton University Press, 1957.
- Michie, Peter and Wilson, James, *The Life and Letters of Emory Upton, Colonel of the Fourth Regiment of Artillery, and Brevet Major-General, U.S. Army*. New York: D. Appleton and Company, 1885.
- Nenninger, Timothy K. *The Leavenworth Schools and the Old Army: Education Professionalism, and the Officer Corps of the United States Army, 1881–1918*. Westport, CT: Greenwood Press, 1978.
- Pratt, W.V. “The Naval War College: An Outline of the Past and Description of the Present.” U.S. Naval Institute *Proceedings* Vol. 53 (1927): Article 295.
- Russell, Kay. “Stephen Bleeker Luce and The Naval War College.” *Naval War College Review* Vol. 32, No. 3 (1979): Article 4.
- Sherman, William T. *Memoirs of General W. T. Sherman*. New York: D. Appleton and Company, 1875.
- Sherman, William T. and Sherman, John. *Correspondence Between General Senator Sherman from 1837 to 1891*. New York: Charles Scribner's Sons, 1894.

- Simons, William E. *Professional Military Education in the United States: A Historical Dictionary*. Westport, CT: Greenwood Press, 2000.
- Spector, Ronald. *Professors of War: The Naval War College and the Development of the Naval Profession*. Newport, RI: Naval War College Press, 1977.
- Spiller, Roger J. *Dictionary of American Military Biography*. Westport, CT: Greenwood Press, 1985.
- Stubbs, Mary Lee, and Stanley Russell Connor. *Armor-Cavalry, Part I: Regular Army and Army Reserve*. Washington, D.C.: Army Lineage Series, 1969.
- Symonds, Craig. *Lincoln and His Admirals*. New York: Oxford University Press, 2010.
- Thomas, Joseph T. *Leadership Embodied: The Secrets of Success of the Most Effective Navy and Marine Corps Leaders*. Annapolis, MD: Naval Institute Press, 2005.
- Upton, Emory. *Correspondence of Major General Emory Upton, First Edition*. Knoxville: The University of Tennessee Press, 2017.
- Upton, Emory. *The Armies of Europe and Asia: Embracing Official Reports on the Armies of Japan, China, India, Persia, Italy, Russia, Austria, Germany, France, and England*. London: Griffin & Company, 1878.
- Watson, Cynthia A. *Military Education: A Reference Handbook*. Westport, CT: Praeger Publishers Inc., 2007.
- Welles, Gideon. *Diary of Gideon Welles, Secretary of the Navy Under Lincoln and Johnson Volume 1*. New York: Houghton Mifflin Company, 1911.

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14. ABSTRACT The Civil War revealed significant shortcomings in the professionalism of the American officer corps and the cost of putting laymen at the helm of command. After the war, both services faced budget cuts and indifference to their proposed reforms. Nevertheless, visionaries like Stephen Luce and Emory Upton championed transformations within the army and navy that reshaped the services. They helped to establish new institutions of professional military education—the Naval War College and the schools of application at Fort Leavenworth—which represented both services' attempts to answer the challenges they were facing. Yet the two approaches to PME were in fact remarkably different: the army focused on tactics and practical training, while the navy sought to broaden officers' strategic and historical horizons. This essay demonstrates the ways in which the particular circumstances of their founding and the character of the key reformers shaped the origins of PME in the United States.					
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