

Contributions of West Point Graduates of the Pre-Thayer Era: 1802-1817

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INTRODUCTION

When the United States Military Academy was officially established at West Point in 1802, it was expected that the institution would supply the country with engineers for civil as well as military purposes. This idea was reflected by James McHenry, who as Secretary of War in 1800, wrote to John Adams defining the duties of the United States Engineer Corps:

We must not conclude that the services of the engineer is limited to fortifications. This is but a single branch of the profession; their ability extends to almost every department of war; besides embracing whatever respects public building, roads, canals, and all such work of a civil nature.¹

Later in 1809, Thomas Jefferson stated in a special message to the Senate and the House of Representatives:

The scale on which the military academy at West Point was originally established, is becoming too limited to furnish the number of well instructed subjects in the different branches of artillery and engineering which the public service calls for.²

In the period before the civil war, West Point served in the dual capacity of a school for training officers and a national school for civil engineering. From the point of view of technical education in America it was the only school of civil engineering until 1835.³

It was during this time that West Point first proved its value to the nation. The superintendency of Sylvanus Thayer from 1817 to 1833 is generally accepted as the most important period in the formative years of the Academy. He is called the "Father of the Military Academy," although he was the third lawful superintendent. What is overlooked most about the history of West Point are the contributions of those who graduated prior to

¹ James Gregory McGivern, *First Hundred Years of Engineering Education in the United States* (Spokane: Gonzaga University Press, 1960), 32.

² Ibid.

³ Ibid., 33.

Thayer's arrival at the Academy. Many historians depict the Academy as a disorganized and troubled school that just barely existed up until the mighty Sylvanus Thayer came to its rescue. However, West Point was effective in producing well educated, professional officers during the "pre-Thayer" era (1802-1817) who made very significant contributions to the nation not only as officers in the profession of arms, but also as civilians in the fields of engineering, education, business, and government. Though their successes as military officers typically overshadow their accomplishments in the civilian sector, their contributions to the development of American civilization were quite significant.

WEST POINT IN THE EARLY YEARS

The first 179 graduates of West Point, in the pre-Thayer years of 1802 to 1817, were pioneers in civil engineering, education, and business/industry. They designed and built the foundation of America's transportation system with roads, canals, and railroads. They were the founders of schools, educators, and authors of textbooks. They were the entrepreneurs of their time, whether as merchants, farmers, or fur traders with the Indians. Not only did they employ the engineering skills acquired at the Academy, but also the leadership skills they learned. Sir J.E. Alexander, a British officer, once reported that a cadet at West Point had told him, "we must get up early, for we have a large Territory; we have to cut down the forests, dig canals, and make railroads all over the country."⁴

Although the primary purpose of the Academy was to produce professional military officers, the secondary role of West Point to produce qualified engineers for the nation was

⁴ Sidney Forman, *West Point* (New York: Columbia University Press, 1950), 86.

emphasized by the leaders of the national government. The Secretaries of War and the Chiefs of Engineers addressed this aspect of the Academy's mission frequently in the early years. Andrew Jackson and Martin Van Buren both felt it important enough to mention in their first State-of-the-Union messages. After recognizing the good influence that the Academy had exercised on the national military establishment, Jackson made note of this secondary role by saying that "the graduates that may not pursue the profession of arms will be scarcely less useful as citizens."⁵ Van Buren made greater mention of their potential for service in the civilian communities by saying:

The Military Academy continues to answer all the purposes of its establishment, and not only furnishes well-educated officers to the Army, but serves to diffuse throughout the mass of our citizens individuals possessed of military knowledge and scientific attainments of civil and military engineering.⁶

The Academy was not without its administrative challenges in the early years. Jonathan Williams was appointed the first superintendent of West Point in 1802, as he was the senior ranking engineer. He also established an association known as the United States Military Philosophical Society which essentially made West Point into a national center for scientific study. The association began the collection of a library which included textbooks, extensive manuscripts, and diverse publications which provided the basis for studies at West Point. Williams' influence ended when he resigned from the superintendency in 1803 over a point of rank.⁷

⁵ Edward Boykin, *State of the Union* (New York: Funk and Wagnalls Co., Inc., 1963), 51, quoted by Hruby, 8.

⁶ *Ibid.*, 136.

⁷ Forman, 26.

President Jefferson, however, was aware of the need for continuing strong leadership at the Academy. He solicited Williams in 1805 and offered him the superintendency again with some concessions. Williams accepted, and also revived the Philosophical Society, which became of national importance in 1807. When we entered war with Great Britain in 1812, there was a scramble for positions of command. Williams wanted command of Castle William on Governor's Island in New York Harbor since he had essentially built it. He was refused and resigned from the Army to join the forces of Pennsylvania. At the outbreak of the war there were only 89 graduates of Williams' institution, of which 65 were in the service.⁸

The first graduate and Chief Engineer, Joseph Gardner Swift took charge of the Academy during the war years. His duties took him away from West Point so much that he delegated his authority to Captain Alden Partridge, who essentially performed the duties as superintendent from 1810-1817.⁹ Captain Partridge was said to be remarkably energetic and directed the Academy successfully with Swift's guidance, although he was relieved in 1817 for accusations of misconduct and poor judgment. His replacement was the one and only Sylvanus Thayer, an 1808 graduate of the Academy. Although the pre-Thayer era was marked with administrative challenges and some substantial growing pains, it was still successful in producing quality officers and leaders.

⁸ Forman, 34.

⁹ Ibid., 38.

CONTRIBUTIONS OF GRADUATES - A GENERAL OVERVIEW

To fully understand the significance of early West Point, one must examine the roles of graduates as both successful military officers and useful citizens. A general overview of the careers of the first 179 graduates will show their contributions were statistically significant. The data is compiled from General Cullum's biographical register of USMA graduates.¹⁰ The graduates fit into two broad categories: those graduates that remained on continuous active duty or returned to active duty as a career, and those that left the Army to pursue civilian occupations.

Eighty-nine of the 179 (approximately 50 percent) remained on active duty for at least 20 years or until death, or returned to the Army and served 20 years. Of those, 17 were killed in action. Many received brevet promotions for gallantry or heroism. Twelve were promoted to the rank of Brevet Brigadier General and two became Brevet Major Generals. It is also important to note that ten of these officers went on to make a significant impact in the civilian sector after having served at least 20 years in active service.¹¹ Among these were Charles Davies and William Gibbs McNiell, who will be discussed in detail later.

From 1802 to 1814, West Point produced 120 graduates; of those in field service one quarter had been killed or wounded; one fifth of the survivors bore one or more brevets for outstanding merit. George Ronan, Class of 1811, was the first West Point Graduate to fall in battle, fighting in hand-to-hand combat at Fort Chicago. Joseph Gardner Swift, the first

¹⁰ These statistics have been compiled primarily from data in George W. Cullum, *Biographical Register of the Officers and Graduates of the U.S. Military Academy, vol. 1* (New York: James Miller, 1897). Hereafter, such statistics will be referred to as: Compiled from Cullum.

¹¹ Compiled from Cullum.

graduate, served with gallantry at Crysler's Farms, and was later an engineering genius in development of New York's fortifications. Eleazer D. Wood, Class of 1806, and James Gibson, Class of 1808, were both killed at the head of their assaulting columns in the victorious sortie from Fort Erie. The brilliant William McRee, Class of 1805 was highly regarded for his war exploits. Sylvanus Thayer, Class of 1808, was brevetted for his actions at Craney Island and in the Defense of Norfolk, Virginia in 1814.¹²

The other ninety graduates left the Army to pursue civilian occupations. Their overall military record was quite acceptable and deserves mention. The obligation incurred by accepting an appointment to West Point was service for one year after graduation; yet only 18 percent got out after a year or less of service. Thirty percent served between three and five years, and approximately 52 percent served five years or more in the Army.¹³

Those that left the Army entered many different civilian occupations: engineering, education, law, medicine, business, politics, and farming, to name a few. Of some of them nothing is known. One newly commissioned lieutenant departed West Point for his first assignment and was reported as "never having joined his regiment."¹⁴ But the majority made very significant contributions to the nation.

A large number of important engineering positions were filled by West Point graduates. Thirty-three of the 89 (approximately 37 percent) are known to have had distinguished careers as chief engineers of important railways, canals, and other public works. Twenty-nine were lawyers, merchants, or farmers. A total of 62 of the 89 (70 percent) made

¹² Ernest R. Dupuy, *Men of West Point* (New York: William Sloane Associates, 1951), 13-14.

¹³ Compiled from Cullum.

¹⁴ Cullum, 121.

significant contributions to the nation in a variety of fields. Many of these also went on to become elected to positions in their local, state, and national government.¹⁵ Having discussed the general characteristics of the first 179 graduates, it is important to focus on their careers in three major fields: education, engineering, and business.

CONTRIBUTIONS TO THE FIELD OF EDUCATION

A great many changes in education happened in the nineteenth century due to the needs of a developing nation for citizens trained in scientific fields, especially engineering. Since West Point was the only school of civil engineering until 1835, it is not surprising that the first graduates played important roles in the nation's educational development during the first half of the century. The scientific educational background enabled them to become teachers of applied sciences, mathematics, physics, chemistry, engineering, and other subjects important to an expanding industrial nation.¹⁶

The early graduates were also founders, presidents, and principals of colleges and universities. Alden Partridge (Class of 1806) founded the Norwich Military Academy and many other schools; he is credited with introducing military instruction and exercises in non-military schools.¹⁷ Partridge was also a professor of math and civil-military engineering at the Academy from 1813-1816. Four of the early graduates became Superintendents of the Military Academy: Joseph Swift (Class of 1802) from 1812-1814, Alden Partridge, acting

¹⁵ Compiled from Cullum.

¹⁶ Dale E. Hruby, *The Civilian Careers of West Point Graduates: Classes of 1802 through 1833* (New York: Columbia University, 1965), 16.

¹⁷ Forman, 35.

Superintendent from 1815-1817, Sylvanus Thayer (Class of 1808) from 1817-1833, and Rene De Russy (Class of 1812) from 1833-1838.¹⁸

One of the greatest contributors to the field of education was Charles Davies, Class of 1815. He was a professor of mathematics at West Point from 1823 until 1837, and had taught there for seven years before becoming a professor. He published five of the earliest texts on algebra, geometry, trigonometry, and calculus, which were used extensively in colleges and preparatory schools throughout the country for nearly fifty years.¹⁹ Davies resigned his commission and professorship in 1837 because of ill health. He continued to write and publish texts on mathematics for nearly every level of education, and eventually produced over twenty volumes. He went on to hold professorial chairs in mathematics at Trinity College, New York University, and Columbia, where he remained until 1865. He was named Emeritus Professor, an honor he held proudly until his death in 1876.²⁰

A discussion of educational contributions of the pre-Thayer era would not be complete without giving credit to Sylvanus Thayer himself, a graduate of the Class of 1808. Thayer's character and skillful leadership established the pattern of the modern Military Academy at West Point. During Thayer's sixteen-year career as Superintendent, he established new traditions and his personality endowed the academy with what has come to be known as "The Spirit of West Point". The basic elements of the Academy organization and methods, principles, and institutional spirit were firmly established under his administration.²¹ The

¹⁸ Compiled from Cullum.

¹⁹ John Wiley and Sons, *The First One Hundred and Fifty Years* (New York: John Wiley and Sons, Inc., 1957), 70.

²⁰ Hruby, 18.

²¹ Forman, 60.

“Thayer System” is still the basis for instruction at West Point today. His contributions were quite significant and are the reason that he holds the title of “Father of the Military Academy.”

CONTRIBUTIONS TO THE FIELD OF ENGINEERING

One of the most important aspects of America’s growth in the nineteenth century was the development of the transportation system. By the middle of the century, the Appalachians had been penetrated, inland waterways were vastly improved and expanded, and the railroad was introduced. This transformation has been called “The Transportation Revolution.”²² West Point Graduates from the first sixteen classes (there were no graduates in 1810 or 1816) played a highly significant role, serving as both civilians and as military officers in all aspects of these projects.

Twenty-three officers remained in the Army as military engineers who worked on internal improvements and other projects. Twelve graduates became civilian engineers and worked on a wide variety of projects.²³ The list of positions held by these graduates and the projects on which they worked is long, and of great importance to a developing nation. It is in this field that the early graduates made their most significant contributions of a non-military nature.

One engineer who contributed extensively both in the military and then as a civilian engineer was William Gibbs McNeill, Class of 1817. McNeill was commissioned a Third Lieutenant of Artillery in July 1817, and assigned to duty with the embryonic topographic

²² Hruby, 41-42.

²³ Compiled from Cullum.

engineers who were then conducting surveys for the defense and navigation of the Atlantic Coast. This type of assignment was common at that time due to the shortage of qualified engineers. For six years he worked in the examination of the southern coasts along both the Atlantic and the Gulf of Mexico, and served for a time with General Jackson in the first Seminole War in 1819. He later became an expert in the area of railroad technology and construction. At one time in 1833, he held the position of Chief Engineer for five different railroads. He continued to work as an Army Engineer on railroad construction until 1837, when he resigned and took up civil railroading.²⁴

McNeill became the Chief Engineer of the Western Railroad that ultimately connected Boston to the Hudson River and the Erie Canal at Albany, New York. This railroad was dubbed the "First Transsectional Railroad" and covered a distance of about one hundred and fifty miles. The project was successfully engineered by a trio of West Point Graduates which included McNeill, George Washington Whistler, and William Henry Swift, both graduates of the class of 1819. It brought praises for its economy as well as its engineering excellence.²⁵

In 1842, McNeill was appointed a major general in the Rhode Island State Militia and given the task of suppressing the uprising regarding the revision of the suffrage laws of the state, known as Dorr's rebellion. It is said that largely through his handling, the "war" remained a bloodless affair. In 1844, President Tyler appointed McNeill to the post of Chief Engineer of the Dry Docks at Brooklyn, New York. After drawing up the plans for the dock and beginning construction, he was removed from the position by President Polk. In 1851, he was honored in London by becoming the first American elected to the Institution of Civil

²⁴ Hruby, 46,50.

²⁵ Ibid, 52-54.

Engineers of Great Britain. He died shortly thereafter.²⁶ William Gibbs McNeill was truly one of the fathers of American railroad engineering, and his record shows his many contributions in both the military and civilian sectors.

Many other graduates made great contributions as engineers on military projects. The Chief of the Corps of Engineers was Joseph G. Swift, the first graduate. He had been very active in the Military Philosophical Society, and became chief engineer following the resignation of Jonathan Williams. Walker Keith Armistead, the third graduate, planned the defenses of Norfolk. Major William McRee, Chief Engineer to General Brown, constructed the fortifications at Fort Erie which cost the British General Gordon Drummond the loss of half his army. Captain Eleazer Darby Wood of New York constructed Fort Meigs, which enabled Harrison to defeat the attack of Proctor in May, 1813. Captain Joseph Gilbert Totten of New York was Chief Engineer to General Izard at Plattsburg, where he directed the fortifications that were an important factor in stopping the advance of Prevost's great army. None of the works constructed by a graduate of West Point during Williams' Superintendency was captured by the enemy.²⁷

CONTRIBUTIONS TO BUSINESS AND INDUSTRY

The pre-Thayer Academy graduates also played an important role in the rise of industry and business in American Life. The qualities of discipline, leadership, and administration that they learned at West Point were desirable in business management. The vast majority of executive positions held by the Academy graduates were in businesses that were dependent

²⁶ Ibid., 54-55.

²⁷ Forman, 34.

on engineering such as railroads, mining, and iron production. Many others held positions in the businesses of banking, insurance, and immigration. They were the presidents, vice-presidents, superintendents, and directors of newly established companies and businesses.²⁸

Gordon County, Georgia is named for the first Georgian who graduated from the United States Military Academy. William Washington Gordon graduated in March 1815 after less than a year as a cadet.²⁹ He resigned from the Army and undertook the study of law. As a practicing lawyer in Savannah, Georgia, he became one of the city's most prominent citizens and was elected mayor in 1833. That year, he and some of the other leading citizens became concerned that the network of railroads spreading across the South would eliminate Savannah as Georgia's leading cotton port. Their solution was to construct a railroad between Savannah and Macon, the center of the cotton growing region.³⁰

A charter was obtained to build the Central Railroad of Georgia and construction began in 1836. Gordon's managerial skill was instrumental in holding construction costs to less than half the average of others built at that time. He died in 1842 at the age of forty-two, before the completion of the railroad. He is considered to have been the founder of Georgia's railroad system, and Gordon County was named after him.³¹

A number of graduates became presidents and superintendents of major companies. Three were graduates of the Class of 1814: Stephen Birdsall became the Treasurer of the Raleigh & Gaston Railroad. Henry W. Fitzhugh was the General Superintendent of the

²⁸ Compiled from Cullum.

²⁹ *Dictionary of American Biography* (1936), Vol. IV, ed. Allen Johnson and Dumas Malone (New York: Charles Scribner's Sons), 427, quoted by Hruby, 68.

³⁰ *Ibid.*, 428, quoted in Hruby, 69.

³¹ Hruby, 70.

Baltimore & Ohio Railroad. William Wells was the Superintendent of the Pontchartrain Railroad. Three graduates from the Class of 1815 also served as business executives: John R. Sloo was the Treasurer of the Illinois & Michigan Canal Company, William W. Gordon was President of the Central Railroad & Banking Company of Georgia, and William H. Chase served as the President of the Alabama & Florida Railroad. Augustus L Rounfort served as the Superintendent of the Philadelphia and Columbia Railroad from 1850-1853, -- and of the Eastern Division of the Pennsylvania Railroad from 1852-1860. He was elected as the Mayor of the City of Harrisburg, Pennsylvania from 1863-1866.³² These early graduates served the country well in the field of business and industry.

CONCLUSION

The first 179 graduates of the pre-Thayer era served the country well, both in peace and in war. They were the early leaders who built the foundation for our developing nation. These graduates contributed immeasurably to the expansion of our national boundaries and economic structure. They provided the basis for the scientific and technological progress of our civilization. Though their numbers were small, they made highly significant contributions to nearly every aspect of the development of the complex network of roads, canals, railroads, and waterways that connected the country. As Goldman (1956) put it, "they built the railroad tracks that stitched the nation together."

The Military Academy at West Point was originally established to train officers and to produce qualified engineers for the nation. From its inception, West Point has succeeded in

³² Compiled from Cullum.

producing military officers that served the profession of arms with honor and distinction. No less important are the many accomplishments of West Pointers in non-military fields. They were the educators, the authors of textbooks, and the founders of schools throughout the country. They were the leaders in business and industry as presidents and directors of major companies. The pre-Thayer West Pointers were the pioneers of civil engineering, education, and business in early America. They certainly were the "useful citizens" that President Jackson referred to in 1829, and made their mark in history.

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