

Artillery “When Properly Managed” Henry Hunt vs. William N. Pendleton

Bert Barnett

Lt. Colonel Tully McCrea was a young West Point-trained officer. During the battle of Gettysburg, he performed yeoman service as an artillerist on those famous fields. In 1898, he observed Gettysburg

*[Had] had been discussed from every point of view except that of the artillery; yet every account of the battle refers to the effectiveness of that arm. In this battle the whole of the artillery in both armies was fought for all it was worth and fully demonstrated the power and influence in battle of this battle **when properly managed**.*¹ [emphasis added.]

The function of an army in combat is to kill people and break things. With increasingly lethal technologies appearing on the battlefield by the 1860's, the largely defensive, yet long-ranged power of massed field artillery had increasingly proven its significance. The artillery commander who most effectively “managed” their “long arm” during battle was therefore most likely to guarantee a more complete victory for his commander – and so it would prove during the Gettysburg Campaign. Given the terrain the battle unfolded across, the two supreme commanders on the field, General George Gordon Meade and General Robert E. Lee, would be at least in part, if not wholly, dependent upon the skill and actions of their prime subalterns for the requisite artillery dominance at key moments.



Gen. Henry J. Hunt (MOLLUS)

For the Army of the Potomac, the lynch-pin of all of these facets was its Chief of Artillery, Henry Jackson Hunt. Born in 1819, he was by 1863 a thoroughly professional soldier. He had graduated from the United States Military Academy in 1839, standing nineteenth out of a class of thirty-one. At age 43, he had spent his entire pre-war career in the artillery branch.²

Hunt's military pedigree, however, extended well beyond his professional education. Orphaned by the death of his father, West Point graduate Samuel Wellington Hunt in 1829, at the frontier outpost of Detroit, Michigan, he had been named for his uncle, the second mayor of Detroit. His grandfather, Colonel Thomas Hunt, had served with distinction in the Continental Army throughout and following the American Revolution and thereafter, rising to the rank of colonel before his death in 1808³.

As a child in 1827, Hunt accompanied his father on the expedition to the future Kansas Territory that founded Fort Leavenworth. Upon his graduation from the United States Military Academy, he served as a brevet second lieutenant in Company F of the 2nd U.S. Artillery. In the Mexican War, under Winfield Scott, the future artillery chief was appointed a brevet captain for gallantry at Contreras and Churubusco. He was subsequently promoted to major following the Battle of Chapultepec. During this conflict he was also once wounded.⁴

On October 5, 1856, Brevet Major Hunt commanded Company M, 2nd U.S. Artillery from Fort Leavenworth that protected the polls at Eaton, Kansas, during the elections of the territorial legislature. Hunt served with the same unit during the Utah War in 1857 against the Mormons. His permanent (regular army) promotions to captain and major were in 1852 and 1861, respectively.⁵

Recognized as a leading authority on the artillery service, Hunt co-wrote (along with Captains William French and William Berry) the *Instruction for Field Artillery* just prior to the Civil War. This new manual was considered to be the “bible” for the proper training and use of that branch of service, and Hunt travelled extensively, assuring its’ proper implementation.⁶

Prior to the Gettysburg campaign, Hunt had served under different army commanders as either a real, functional Chief of Artillery, or as a glorified staff officer, and not the head of the legitimate force that massed artillery represented on the battlefield. This was a lesson the Union command structure was somewhat slow to learn, even when blessed with an obviously superior number of guns. For example, at the Battle of Chancellorsville the Union possessed over 400 pieces, compared to 238 Confederate cannon, (as elements of Longstreet’s corps were absent.) Even here, Federal concentration of artillery and fire superiority had proven difficult to achieve on the battlefield, most of which was choked by thick underbrush and dense woods. In his manual, Hunt wrote specifically upon the value of “combined and concentrated” firepower:

“It has, therefore, for its object, not to strike down a few isolated men, and to here and there dismount a gun, but, by a combined and concentrated fire, to destroy an enemy’s cover, to break up an enemy’s squares and columns, to open his ranks; to arrest his attacks; and to support those which may be directed against him.”⁷

In company with other officers, Hunt had for some time been pressing for changes within the artillery command structure of the Army of the Potomac. Unfortunately, sometimes it took much more than the choir of a few voices to force the heavy head of tradition. Chancellorsville would be such a circumstance; paving the way for a corps – level restructuring of Union field artillery. The need for this change is nowhere better described than in the writings of Colonel Charles S. Wainwright’s private diary. A meticulous, precise, opinionated man, Wainwright served as the Chief of Artillery for the First Corps. This trusted associate of General Hunt accurately recorded the meltdown of the Federal artillery command on that occasion.



Charles Wainwright (MOLLUS)

At the crisis of the battle on Sunday, May 3rd, a discussion transpired between General Hooker and Colonel Wainwright. Although not a “regular”, Wainwright was an experienced officer of the old 1st New York Light Artillery pre-war state militia organization. Wainwright possessed a fair amount of experience, combined with the cross-bred arrogance of a self-assured rich man, who in this case had truly studied his adopted craft. His personal diary, never intended for publication, and later published as *A Diary of Battle*, reveals the following confrontation at General Hooker’s headquarters on the 3rd of May:

Hooker: *Well, Wainwright how is the artillery getting along?*

Wainwright: *As badly as it well can. Batteries are being ordered in every direction, blocking up the roads; and no one seems to know where to go. Where is General Hunt?*

Hooker: *What is the matter?*

Wainwright: *As near as I can understand, every division commander wants his own batteries, & battery commanders will obey no one else’s orders. It is just the condition I told you of and wanted to provide against, by giving artillery officers of rank actual command, so that they could order any battery. The ammunition trains, too.*

Hooker: *Well, we have no time to talk now. You take hold and make it right.*

This discourse between the two officers continues for a bit, but two keys were revealed when Hooker plainly stated that General Hunt was off at Bank’s Ford, and wished Wainwright to step in, as he “kn[e]w nothing” of [General Charles] Griffin or [General Romeyn B.] Ayres, two Regular artillery officers Wainwright suggested instead of himself.

Hooker: ***I know nothing of them as artillery officers; I do you, and wish you to take it. General Allen will write the order...***

Hooker: *Col. Wainwright, 1st New York Artillery, will take command all of the artillery and ammunition of this army. No officer whatsoever will give any order which may conflict with his arrangements. Will that do, Wainwright?*

Self: *Perfectly, Sir.*⁸

During the post- Chancellorsville restructuring of the army, General Hooker remembered having been legitimately taken to task and set about to correct it. On May 12, 1863, he issued Special Orders 129, which focused on the artillery organization. It stated in part that:

“A consolidation and reduction of the artillery attached to the army corps will be affected. The artillery assigned to each corps will constitute a brigade, under the command of the chief of artillery of the corps for its command and administration.”⁹

The new brigade system left a varying number of guns within each infantry corps. All corps, save the Sixth & Twelfth Corps, had five batteries each; the Sixth had eight, and the Twelfth but four. Irrespective of the numerical imbalances, streamlining the system of artillery operations provided an enhanced responsiveness, free from division-level interference. Following the implementation of Special Orders 129, this restructured Union force actually now contained fewer guns, (a total of 364, including the 44 assigned to the Horse Artillery.) This was a notable reduction from the 412 guns taken to Chancellorsville, but with an improved flexibility overall.¹⁰ In his post-Gettysburg report, Hunt declared that in addition to the three hundred and twenty guns within the seven infantry corps,

“... it will be seen that the Artillery Reserve, **every gun of which was brought into requisition**, bore, as in all the campaigns of the Army of the Potomac, its full share, and more, of the losses.”[emphasis added]¹¹

With a few exceptions, the restructured organization had effectively freed the big guns from the “strangle-hold command” of divisional officers.

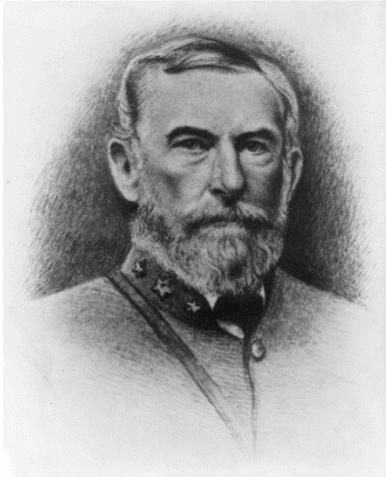
Hunt further improved other areas of the artillery service as well, using the same methodology in personnel. Recalling the tendency of infantry commanders to throw aside caissons in favor of infantry mobility during previous engagements, Hunt enlisted the help of Army Quartermaster Rufus Ingalls and other trusted friends and associates, most of whom were tried & true old line artillerists, and West Point associates (Generals Romeyn B. Ayres, John Gibbon, Charles Griffin, and Stephen H. Weed) whose loyalty, understanding, and cooperation could be counted on.¹²

Post-Chancellorsville, Hunt was able to rely upon this serious, professional network, trusting in the shared experiences of men who, like himself, understood the proper priority of projectiles in battle. Through a conspiratorial construction of a “*secret ammunition train*,” Hunt arranged for there to be 20 rounds extra per gun carried in the line of march beyond the 250 officially permitted by orders. General Hooker never learned of it during the remainder of his command tenure, and Hunt likewise concealed it from Meade through most of the battle of Gettysburg.¹³

Now let us examine the Confederate side of command and leadership.

Lee had quite a different set of problems to contend with in command. Prominent among them was Confederate artillery chieftain William N. Pendleton, a gifted organizer, who, given the deeper problems within the Confederate “Long Arm,” functioned as more of a figurehead than as

a true leader. The temptation to equate Pendleton with the flaws of his service branch results in a somewhat overly harsh assessment; for the defects of each flowed from different sources.



Gen. William N. Pendleton (MOC)

Born in 1809, William Nelson Pendleton distinguished himself by graduating fifth in his West Point class of 1830.

Nevertheless, Pendleton resigned his commission three years later to pursue a teaching career and was ordained an Episcopal minister 1838. In 1847, he ceased teaching and devoted all his energies to ecclesiastical pursuits. In 1853, he became the rector of Grace Church in Lexington, Virginia, where Robert E. Lee worshipped. In 1861, upon the secession of Virginia, Pendleton became Captain of the Rockbridge Artillery. Although out of the killing arts for some twenty-eight years, Pendleton was rapidly promoted to the rank of Chief of Artillery.¹⁴

Unfortunately for the Southerners, artillery service in the Confederacy was problematic. In Lee's army, many initial flaws in the branch were not of Pendleton's making, yet might well have benefitted had a man with a different composition been in his position. As it was, many difficulties ultimately combined, in some form or fashion, to eventually handicap his commander on the Gettysburg battlefield. Some of this can be traced back to the internal politics of "being the Confederacy" and the problems that states' rights presented to military efficiency. Pendleton was forced to suddenly "*dance with the one that brung ye,*" as the old expression goes. This held true in available material, both in the guns themselves (material) and regarding the future leaders of the Confederate artillery service (manpower). Two examples here should suffice: The first dealt with his desire to standardize batteries, which would have provided a number of tangible benefits on the battlefield. It was a painful Confederate tradition that batteries were reliably composed of mixed rifled and smooth-bore sections, negating the full-battery firepower impact of either.

During battle, when the concentrated fire of long-range artillery was desired on a target from a favorable terrain feature- northern Seminary Ridge for example- impromptu rifle groupings composed of scattered sections of numerous units would be formed on the spot. This often had the effect of "de-composing" intact batteries, as rifled sections of many units were scavenged and ordered to unite at various tactically-important locations. Continual use in this fashion led to losses in unit efficiency, unit cohesion, and threatened morale. The underlying problem that fed into this was the nature of the industry-poor Confederacy, and the "states' rights" affiliation connected to their hard-won "battle-trophy" artillery pieces. This meant consolidation and redistribution for the sake of re-organized battery efficiency, later proven to be well-nigh impossible; thus it led to the continual shifting of guns about the field.

Pendleton had tilted at this windmill on occasion, without success. The correspondence quoted below, apprising Lee of his failure to progress in this area, is evidence of his frustration with this matter. Written just before the Pennsylvania campaign, the letter is a window into just how paralyzing this issue looked to the "Parson". It is worth observing here that when confronted with a serious issue, Pendleton's voice appears notably passive:

W.N. Pendleton to Lee,
May 30, 1863

“Considerable difficulty exists between the armaments of many of the battalions. Some have rifles in excess, others Napoleons...It has been deemed a less evil to let it remain than to create other difficulties by enforcing an equalization. It will be observed that to give rifles to Maj. Eshleman, they must be taken from some other battery. **I cannot recommend it, because the serious changes now in batteries and battalions that have long used certain guns must produce regrets and dissatisfaction, which, in a case like ours, requiring the whole hearts of men, it does not seem wise to excite...It seems the least evil is to let the battalions remain as they are.**”[emphasis added]¹⁵

The second example of this political sensitivity appears in the battalion plan that Pendleton had submitted to Lee on February 11, 1863. In noting the various commanders and their qualifications, he took pains to highlight the state of origin of most of them, summing it up for the ear of his Virginia-born boss this way:

“The proportion between the number of field-officers thus proposed belonging to Virginia and those from other states is very nearly coincident with that between the number of batteries from Virginia and those from other states... This would give of the 28 field officers proposed, about 17 from Virginia and 11 from other states. Of those actually recommended 18 are from Virginia and 10 are from other states.”¹⁶

The essence of this had been confirmed by others, as General Pendleton had already “made his mark” as a combat artillerist of a sadly distinctive sort. At the Battle of Malvern Hill during the Seven Days Campaigns, both Col. Edward P. Alexander and Colonel Daniel H. Hill later commented on it. In his “*Personal Recollections*,” Col. Alexander noted Pendleton’s performance there:

“We had, under him, organised [sic] battalions-several-including perhaps 20 batteries. He reports that he could find neither Gen. Lee nor any place on the field where he could get in with his guns. His report will convict him of practically hidden [sic] himself out all day where nobody saw him, and where no orders could find him.”¹⁷

Colonel Daniel Harvey Hill also later recorded his frustrations with General Pendleton’s command:

“Instead of ordering up 100 or 200 pieces of arty to play on the Yankees, a single battery...was ordered up and knocked to pieces in a few minutes. One or two others shared the same fate of being beat in detail. Not

knowing how to act in these circumstances, I wrote to General Jackson that the firing of our batteries was of the most farcical character.”¹⁸

This rising recognition of General Pendleton’s failures had not gone unnoticed by others. Lieutenant Hamilton Chamberlayne, of Richmond’s Crenshaw Battery, once observed that “Pendleton is Lee’s weakness. He is like the elephant, we have him, and we don’t know what on earth to do with him, and it costs a devil of a sight to feed him.”¹⁹

By the time of Gettysburg, however, General Pendleton’s administrative gifts, whatever they were, had become of secondary concern. If once present, he no longer possessed the grit necessary for battlefield command. Yet Lee kept him on, as it would take a Gettysburg-scale failure before Pendleton was reluctantly shifted the rear, with his command restricted only to Reserve units. Belatedly yielding both the mounting evidence and the criticisms of his artillery chief, Lee later acknowledged the inevitable. Following the death of General Leonidas Polk in 1864, the ever-careful Robert E. Lee tipped his hand a bit when asked to endorse if Pendleton might serve as a suitable replacement for that fallen general. Lee responded, “I do not mean to say by this that he is not competent, but from what I have seen of him, *I do not know that he is...*” [emphasis added]²⁰

Effective, centralized, combat command was not what Pendleton provided. He served more a communicant to Robert E. Lee, perhaps functioning best as an organizer and a figurehead. Given his somewhat erratic performance in the field, Confederate artillerists had therefore developed connections (workarounds) within each corps and artillery battalion structure to most efficiently utilize their own guns in supporting roles in combat. As a result, there was less of an ability to coordinate and sustain massed fire on a target, or in communicating between corps. Ultimately, the task of artillery coordination between corps would rest with Lee himself.

In the middle of the Gettysburg struggle, that would be quite a lot to deal with. On the Federal side, General Meade was gifted the luxury of General Hunt, who tended to micro-manage details, personally inspecting many aspects of artillery placement on the field, while riding to and fro across the battle-line. Confederate artillery was structured, and therefore functioned, differently. Each infantry corps, numbering roughly 25,000 men, formed in three divisions, each of which was supported by a “battalion” of artillery, each possessing its own cohesive allotment of batteries, usually four in number; though on occasion numbering as many as five. Two battalions made up a “Corps Reserve” for each corps. Given the shortage of guns, there was no “General Reserve” to draw from.²¹



J. B. Walton
Col. Batt. Washington Art'y
Chief of Art'y.

Chiefs of artillery for each of the three Confederate corps commanders serving under Pendleton were a varied lot. In General James Longstreet's First Corps, the position was held by Colonel James Burdge Walton. Though a native of Newark, New Jersey, Walton was a merchant by trade, and had joined the famed Washington Artillery of New Orleans in 1839. He served during the Mexican War as the unit's adjutant, and continued to rise through the ranks into the Civil War, becoming battalion commander in March of 1862. Walton brought 73 guns to Gettysburg following his promotion to command of the First Corps artillery following the Battle of Chancellorsville. In spite of his enhanced responsibilities, Walton still retained a provincial outlook on occasion, which handicapped his effectiveness at Gettysburg. Following the war, Walton attempted something of a self-resurrection, where he retained command of a shorn Washington Artillery.²²

(MOLLUS)

In the Second Corps of the Army of Northern Virginia, under Lieutenant General Richard Stoddard Ewell, the artillery forces were overseen by Colonel John Thompson Brown. Unlike Walton in the First Corps, Brown did not possess a pre-war military background; he was a prominent Richmond attorney prior to the 1859 John Brown raid on Harper's Ferry. His competence in the courtroom evidently fitted him for command and by the spring of 1862 Brown commanded a battalion in the Artillery Reserve during the Seven Days' Battles. Recommended for corps level command following the artillery restructuring after Chancellorsville, Col. Brown brought 86 guns to Gettysburg. Brown, however, was one of a number of gunners later criticized for failing to acquire enough ammunition in position to properly support the grand bombardment of July 3rd. Brown was killed the following year at the Battle of the Wilderness while scouting locations for his guns.²³

The only professionally trained artillerist among the three corps artillery chiefs was Ruben Lindsay Walker, an 1845 graduate of the Virginia Military Institute, and a civil engineer. Promoted to that grade when General Ambrose Powell Hill assumed command of the newly created Third Corps, Walker collectively commanded 92 guns, and also directed all three corps' reserve batteries at Gettysburg.²⁴

A select review of particular artillery actions spotlight the effective use of that arm during the battle; and from those examples, deductions may be drawn revealing the most efficient leadership of that service at Gettysburg. In fairness, however, it must be recalled that the nature of field artillery in this era is best suited for *defensive* purposes. As singularly powerful as it is, command of field artillery alone cannot redeem structural faults or flaws created elsewhere.



J. Thompson Brown
Col.
Chief of Art'y

(MOLLUS)



R. Lindsay Walker
Col.
Chief of Art'y

(MOLLUS)

At the conclusion of the fighting on July 1, 1863, surviving elements of the Union First and Eleventh Corps occupied the heights of Cemetery Hill and northern Cemetery Ridge. Rallied on this high ground just south of Gettysburg, the troops of these two corps felt more than cold comfort from the support of several batteries, interspersed among them at this new location. Along the high ground south of town, the combined firepower of those forty-four remaining pieces posed an impressive deterrent against anyone considering action again the hill at the close of the first day. The two Union artillery brigade commanders, Col. Wainwright of the First Corps, and Major Thomas Osborn of the Eleventh, had taken a practical view of the situation as it then stood, and rather than attempting to reshuffle forces in the face of the enemy, expediently adapted to circumstances. Using the Baltimore Pike as an impromptu dividing line, Osborn commanded the forces to the east of the Pike, while Wainwright took charge of the batteries west of the road, irrespective of which corps they actually belonged to.²⁵

Major Thomas Ward Osborn, unlike Col. Wainwright, had lately come to an appreciation of the military. An 1860 graduate of Madison (later Colgate) University in New York, he studied law at Watertown with “no interest whatever in military affairs,” until the defeat at First Manassas. Then, “from a sense of duty alone,” he determined to enter the army. He mustered into service in September 1861, having raised a company of men for the artillery service from the Watertown area. The determination Osborn demonstrated merely to climb aboard a force he had previously found “repulsive” is notable. With no militia training, by early February of 1863 Osborn was commanding a division of artillery in the Third Corps. Following the battle of Chancellorsville, he found himself reassigned to the dubious task of reassembling the shattered Eleventh Corps artillery, under the new Hunt/Wainwright brigade plan. During the interim, Osborn worried he would not have the sufficient time required to bring the batteries up to shape again as he confided to his brother Spencer on May 11th, “So far I have been...taxing my ingenuity to

determine how best to make the batteries serviceable again...If we lie still two or three months, I can put it in good shape. If we move soon, I do not see how it can be done.”²⁶



Thomas W. Osborn
Maj. 1st Regt. N.Y. Light Art
Comdg Artly. Brig.

(MOLLUS)

Yet somehow the task had been accomplished; for the far greater part, the batteries of the Eleventh Corps had fought the good fight on July 1st. Now the sun was about to rise again. About that time, if Brigadier General Hunt's report of this action is to be trusted, "At or near daylight, Major-General Slocum reported to the commanding general that there was a gap between the left of his line & the right of the 1st Corps, which he feared would be taken advantage of by the enemy....I considered this, in connection with the order previously given me, as a recognition, for the present, at least, of the position I had held at Antietam and Fredericksburg, as commander of the artillery of the army, and proceeded to make the necessary dispositions and to give all directions I considered necessary for the rest of the battle. In order to cover the gap between the First and Second Corps, the batteries of the Twelfth Corps (Muhlenberg's F, Fourth United States, six 12-pounders; Kinzie's, K, Fifth United States, four 12-pounders; Winegar's, M, First New York, four 10-pounders, and Knap's, E, Pennsylvania, six 10-pounders) were placed so as to command the outlet from that interval to the Baltimore pike, and such of the batteries on Cemetery Hill as commanded the ground and its approaches from the side of the enemy were also placed in position. The interval between the lines was too broken and heavily wooded to permit the artillery to be placed on the immediate line of battle. These positions were held by the batteries until the infantry line was completed and well strengthened, when the artillery was arranged for any attack the enemy could make."²⁷

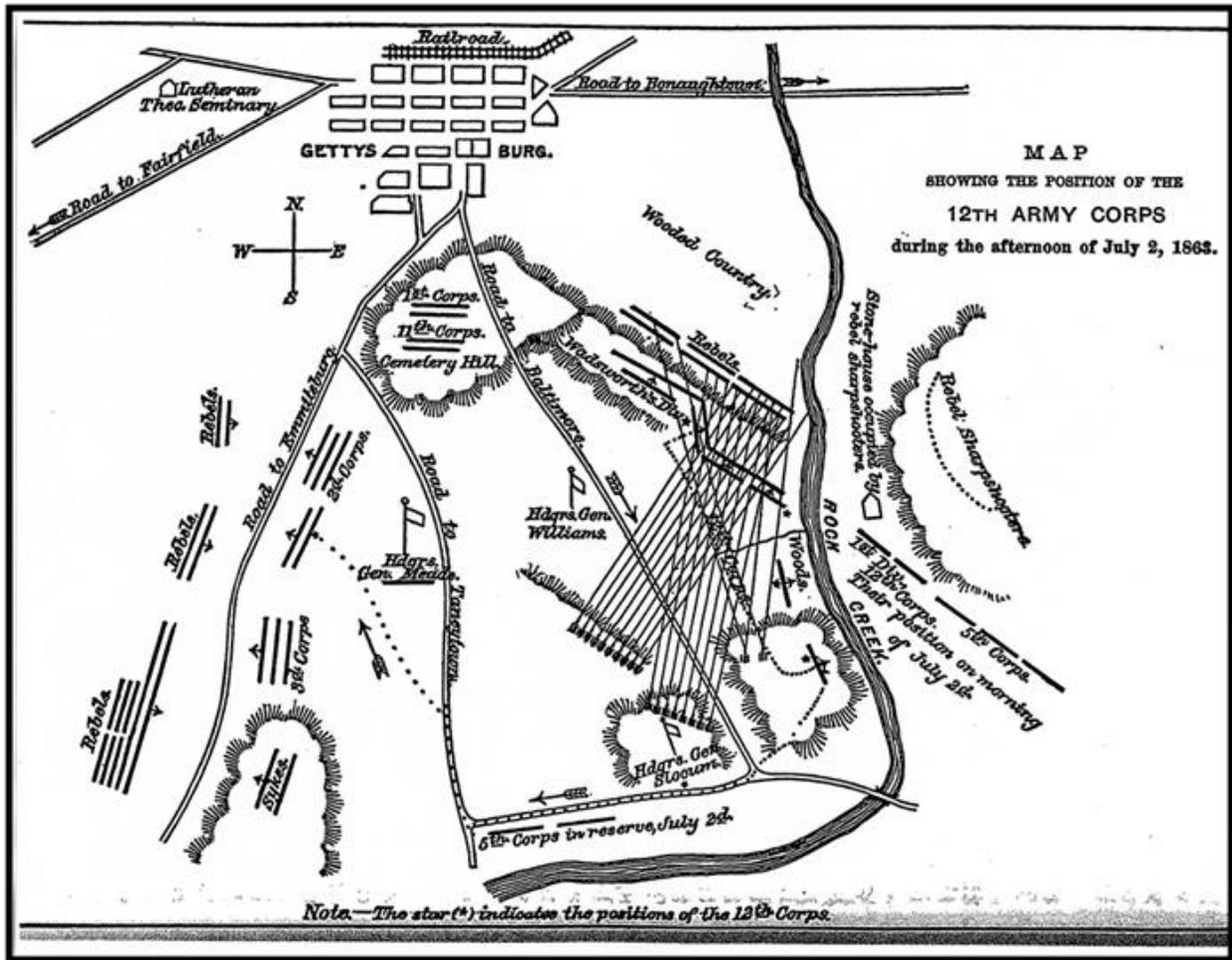
In his postwar writings, Major Osborn recalled the morning of the 2nd somewhat differently:

"Before Sunrise, and 'til some time after, this pass [the gap created by the low freshet feeding into Rock Creek; Spangler's Spring] to our rear was not covered by our troops, and the infantry was not immediately at hand to do it. I immediately drew out from the batteries on the hill two 6-gun batteries, & moving them to the rear of the hill and east of it, and half a mile from the entrance to the ravine, distributed them in sections over a half mile front so their fire might be concentrated in the mouth of the pass.

"After sunrise, General Hunt, Chief of Artillery of the Army, came upon the hill and asked me to ride around the batteries with him. When we were riding along the line of the hill, he noticed the batteries on the plain and turning to me abruptly, he said with decided emphasis, 'What are those batteries doing there?' I told him that the pass was not guarded and those batteries were all the protection the army had to prevent its being turned. To this he said 'Batteries should not be so exposed without support.' I informed him that [General Howard] had no troops to spare to support them. He then asked, 'Whose plan was it in putting them there?'

I told him that I had reconnoitered the pass, found it open, and had volunteered to General Howard to guard it with two batteries. After completing his inspection, he was about to ride off when I asked him what instructions he had to give. He replied, 'None.'”

Pointedly, Osborn also observed that Hunt, in the latter’s *Century Magazine* article on the Battle of Gettysburg, “ ... had placed [the batteries] there and assume[d] all the credit..[yet...] all [Hunt] did was not to give orders for their withdrawal.”²⁸



Federal artillery aligned on the Baltimore Pike (north to south) was Fitzhugh’s Battery K, 1st NY Light and Parsons’ Battery A, 1st NJ. Adjacent to them was Rugg’s, Battery F, 4th US and Kinzie’s Battery, K, 5th US from the Twelfth Corps Artillery Brigade. Winegar’s Battery M, 1st NY Light, Atwell’s (Knap’s) Independent PA Battery E, and Rigby’s Battery A, 1st MD Light were on Powers Hill, General Slocum’s headquarters. (Map courtesy of the author)

So victory has a thousand fathers. Irrespective of the later record, it was rapidly recognized by both men that quickly placing artillery, capable of providing covering fire to protect vulnerable points, was critical to securing this Federal defensive position on Cemetery Hill. While there seems to be some speculation as to the precise number of guns employed in this first “Baltimore

Pike early warning system” (fluctuating from ten to twelve guns, depending on account), consultation of both old and revised scholarship suggests a composite picture. Presuming the one damaged gun of Dilger’s Battery I, 1st Ohio Light, still unrepaired from its engagement on July 1st, a total of eleven guns is not unlikely. Trusting in this likelihood, the eleven guns appeared as follows, creating a thin, preliminary artillery front facing east with its right flank extending roughly half a mile south to protect the Baltimore Pike. This line was composed of six 12-pounder Napoleons of Lt. Eugene Bancroft’s Battery G, 4th U.S., split into sections to cover more terrain; three 12-pounder Napoleons of Capt. Hubert Dilger’s Battery I, 1st Ohio Light, and lastly, two rifled pieces, a section of either 3-inch Ordnance Rifles of Captain James A. Hall’s 2nd Maine, or 10-pounder Parrott Rifles of Lt. William Wheeler’s 13th New York Independent Battery, from Col. Wainwright’s brigade.²⁹

The Baltimore Pike, then, perhaps *the* critical artery for this new Union defensive position at Gettysburg, was, for the moment, somewhat more secure. Some twenty-five miles from the Union rail-based resupply depot at Westminster, the Pike was the Army of the Potomac’s most direct logistical lifeline. With the arrival of General Henry W. Slocum’s Twelfth Corps around 12:30 a.m. on July 2, protection for the army’s advanced position became more possible. However, before the rough and varying terrain could be finely appraised, and the entire complement of over 10,500 men, with its 20 artillery pieces emplaced, security still had to be obtained in the darkness. The height of Culp’s Hill, some 620 feet, would most likely direct any foe to channel the thrust of any potential Confederate advance towards Baltimore Pike into the low ground of what has been described as “the Spangler’s Spring Gap.” Eventually, between Reserve units and batteries of the Eleventh, First, and Twelfth Corps, forty-nine guns at various times would be focused into covering this position, thus more firmly protecting the Baltimore Pike.³⁰



Edward Muhlenberg
(MOLLUS)

General Slocum’s Artillery Corps Chief, Captain Edward Duchman Muhlenberg, was one of the best in the Army of the Potomac, and in the tangled terrain of the Gettysburg battlefield’s eastern slopes, Muhlenberg proved to be a splendid “manager” of artillery during the course of the battle. His efforts would validate the theories of his superior, General Hunt, who had repeatedly preached on “concentration of fire.” His experiences along the Baltimore Pike at Gettysburg would further underscore that it was not the mere “concentration” of fire, but the *coordination* of it, as well, from disparate locations that made the difference. In other words, not so much *where* your guns might happen to be, but that their projectiles all land together as a team, thus effectively reducing any target.

Born in Lancaster, Pennsylvania, in 1831, to the prominent Muhlenberg family, Edward had graduated from Yale University in 1850 and was subsequently engaged until September 1857 as a civil engineer on various railroads and canals in Pennsylvania. Afterwards, he sailed for Brazil in company with several other civil engineers and artisans to assist in the construction of the Dom Pedro Segundo Railroad, which ran westward from Rio de Janeiro. Several months after outbreak of the Civil War, Muhlenberg returned to the United States and enlisted in the Union Army in Philadelphia. He became a second lieutenant in the 4th U. S. Artillery in October 1861.

Promoted to the rank of first lieutenant on October 22, 1861, Muhlenberg served with Battery F of the 4th at the First Battle of Winchester, May 24–25, 1862. He later commanded the battery at the battles of Cedar Mountain and Antietam. Throughout the remainder of 1862 and into the spring of the following year, Muhlenberg, often working with Captain Clermont L. Best, sharpened his technical and leadership skills. This paid needed dividends during the crisis at Chancellorsville, when at one point Muhlenberg commanded batteries attached to Brig. Gen. John W. Geary's division. In protecting the left of the Twelfth Corps line, he was responsible for directing the fire of some twenty guns. Following the post-Chancellorsville artillery brigade reorganization, his skill was recognized and Muhlenberg was honored (but not promoted) into the position of commander of the Twelfth Corps Artillery Brigade.³¹

Meanwhile, Captain Best, previously artillery chief for the Twelfth Corps, became inspector general on Maj. Gen. Henry W. Slocum's staff. Slocum himself, born in 1827, standing 7th of 43rd in the West Point class of 1852, was no dullard; he was a smart fellow, even if he did study law, and his inherent intelligence appreciated the strength of good terrain, bolstered with artillery. It was he who would speak up at General Meade's July 2nd "Council of War," expressing the sentiment, "*Stay and fight it out.*" Slocum later employed Col. Best to oversee deployment of the available guns on the morning of July 3, 1863, when initiating a counter attack against Confederate forces occupying portions of Culp's Hill.

Both Meade and Lee were dependent upon their subalterns Hunt and Pendleton to skillfully express their wills on the battlefield – through the use of efficient, powerful firepower. It is no accident that the artillery arm was best situated for the tasks of combined and concentrated fire when situated in a good defensive position, and Culp's Hill would certainly prove to be such a position. Artillery so placed, *defacto*, normally conveys a certain extra strength to that combatant. Yet, the determined Confederates would not relinquish victory willfully.

Having introduced a few of the major players, let us now examine these less-heralded, but still critical artillery fights of the Gettysburg battle.

Benner's Hill – Simply "A Hell Infernal"

Major Osborn's vigilance to the east on the early morning of July 2 reflected realistic concerns as to the potentials of a Confederate approach from that direction. Indeed, following the decision by General Lee to leave General Richard Ewell's Second Corps in position to challenge Slocum's possession of Culp's Hill, artillery played a key role in testing the soon to-be legendary "invincibility" of Cemetery Hill. Indeed, the hill's own extended length between two Confederate forces made it potentially vulnerable to artillery cross-fire. General Ewell, in planning his supporting demonstration of the July 2nd attack, wished to begin his movements against Culp's Hill with an artillery barrage upon the Federals batteries on East Cemetery Hill. Determined to exploit this, Captain Willis J. Dance's Battalion, positioned just west of town in the area of the Lutheran Seminary, provided twelve rifled guns from the following batteries: four 3-inch Ordnance Rifles of Capt. Dance's own battery, Lieutenant John M. Cunningham, commanding; Captain David Watson's 2nd Richmond Howitzers held four 10-pounder Parrott rifles; the 3rd Richmond Howitzers, Captain B.H. Smith, Jr, supplied another four 3-inch

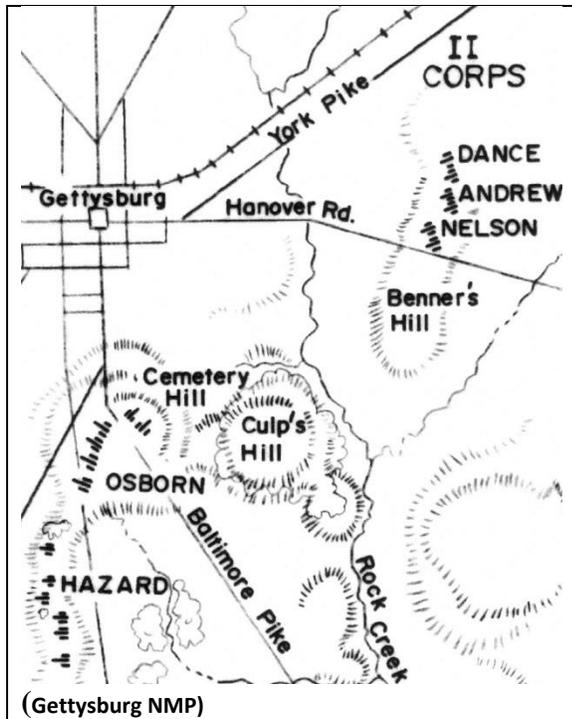
Ordnance Rifles. Collectively, this battalion began its shelling of Cemetery Hill at roughly 4:00 p.m., nearly the same time another Confederate battalion took aim on the hill's more easterly side. Curiously, although the artillerists of Dance's battalion fired approximately as long as those of Andrews' Battalion toward the northeast, their participation in General Johnson's pre-attack preparation was not as often recalled, either by attacker or defender.³²

That primary assignment given to Major Snowden Andrew's Artillery Battalion, temporarily commanded by Major Joseph W. Latimer, was quite visible to all involved on the afternoon of July 2nd. A cadet at the Virginia Military Institute at war's outset, referred to by General Ewell as "The Young Napoleon," Latimer was also known as "the Boy Major." Informed of the details early in the morning of the role his guns were to play, the young officer set out in the dim light to reconnoiter a position for his battalion of guns. What he saw did not impress him. The only location available was Benner's Hill, some forty feet lower than the eastern crest of East Cemetery Hill, bristling with Colonel Wainwright's batteries covered by freshly-built lunettes. The position was a short, bald ridge across the Hanover Road, in clear fields, some three-quarters of a mile from the target. Latimer's Battalion consisted of four batteries, carrying sixteen guns, six of which were 12-pounder Napoleons. Of the remainder, five were 10-pounder Parrott rifles and three 3-inch Ordnance Rifles. The last two guns, long-range 20- pounder Parrott rifles, belonged to Captain Charles Raine's Lynchburg Artillery. The power of these two, capable of hitting targets reliably at 1,750 yards, inspired the transfer of yet another four-gun battery of similar guns - Captain A. Graham's 1st Rockbridge Artillery, from Captain Willis Dance's Battalion of the Artillery Reserve, to strengthen the firepower of the planned bombardment. The six long-range guns (Graham's and the section from Raine noted above), would operate as a *de facto* battery, somewhat in the rear of the battalion, further east. The remaining fourteen guns of Latimer's original sixteen operated together, along the hilltop below, to receive the benefit of its elevation.³³

Given their exposed location, in the face of Wainwright's field of fire, however, Latimer determined to keep them all concealed on the eastern edge of the hill until the last possible moment. However, almost immediately after his gunners appeared with their pieces, well within range of Wainwright's command, the Federals effectively opened up on them. Pvt. John William Ford Hatton, of Dement's Maryland Battery, recalled:

"At 4 o'clock P.M. our Battery advance[d] to the line of battle and rolled our guns in position about on a hill about two miles east of Gettysburg. Our whole artillery battalion opened fire as fast as the guns could be gotten in position, and a storm of shell greeted us the moment our first gun fired. It seemed the enemy had gotten range of the hill even before we fired."³⁴

Although not often noted as a grand discussion point, the afternoon artillery contest between gunners of Andrew's Battalion and the Federals facing them proved many of General Hunt's points regarding *fire coordination*. Although Wainwright responded to the threat before him with "thirteen three-inch guns," along with an occasional irregular 12-pounder shell from the left section of the 5th Maine Battery on Steven's Knoll, Latimer's command would in fact receive fire from other, more detached units positioned atop Culp's Hill.



Lt. William Van Reed's section of 12-pound Napoleons from Lt. David Kinzie's Battery K, 5th U.S. Artillery, along with three rifles, 10-pounder Parrotts of Lt. Charles Atwell's Pennsylvania Light Artillery (Knap's) Battery E. Directed by Lieutenant Edward R. Geary, the son of the commander of the Twelfth Corps, this composite unit assisted in delivering an effective counter-battery fire against their opposite numbers, taking out two caissons and further impeding the already heavily harassed Confederates. Mounted in their separate position, this isolated outpost of Union artillery soon received the full attention of Latimer's gunners, following the successful detonation of the two caissons. Turning two four-gun batteries upon them, the twin benefits of elevation and precision soon paid off: The proud father of the lieutenant commanding the Union pieces later humbly reported the "guns were admirably served in the midst of a deadly fire;"³⁵

Gen. Hunt noted "after a spirited contest of thirty minutes [the enemy's] guns were silenced."³⁵

Overall, however, it would not be a quick or easy fight for either side as both combatants possessed their own 20-pounder firepower capable of doing notably heavier damage at longer distance. For their part, the Federals were ably assisted by Captain Elijah Taft's 5th New York Independent Battery, located on a spot of high ground just on the western side of the Baltimore Pike, near the Evergreen Cemetery gatehouse. Armed with six 20-pounder Parrott rifles, one section had initially faced north, but turned eastward once the bombardment began. With the remaining four guns, all then dealt with the heavier artillery of the Confederates along the Hanover Road as Graham's and Raine's "heavies" began to make themselves felt.

The exchange of iron between the cannonneers left a distinct impression on all concerned. Veteran artillerist Col. Wainwright, in an unusual error, presumed the Confederates had been placed higher than his own guns but he also credited the opposition, noting "their fire was the most accurate I have ever seen on the part of their artillery..." He, like Maj. Osborn atop Cemetery Hill, commented on the effectiveness of the fire against their position. While sitting on a stone wall, Wainwright observed, "one of these shot struck the center of a line of infantry who were lying down behind the wall. Taking the line lengthways, it literally ploughed up two or three yards of men, killing or wounding a dozen or more."³⁶

One tactic recalled by Confederate gunners on this day was the "battalion fire," where the entire unit discharged their guns at once. It was all about timing for advantage. One Confederate gunner recalled an instance during this fight when the fire from multiple batteries seemed to work powerfully against them. For an instant after firing, "[T]he ground upon which we stood trembled from the jar. So promptly did the enemy reply that it seemed as though they caused our own shell[s] to rebound against us, after the manner of a boomerang, after leaving the muzzles of

our guns, but a step or so...Doubtless, they were watching our demonstrations, and fired at seeing the flash of our guns before our balls reached them.. The missiles of death and destruction passed one another in the air on their speedy and unerring mission.”³⁷

The Confederates on Benner’s Hill were in a very bad spot. The benefits of superior position, placement, and organization granted the Federal artillery an undeniable edge in this contest. With no targets seemingly posing an outsize threat to them at the moment, and the freedom to shift assets without unnecessary bureaucratic chain-of-command restraints, as in the pre-Chancellorsville days, the badly-timed challenge of Latimer’s bombardment had indeed “boomeranged.”

Overpowered and outnumbered, following a fierce give and take of some two hours with the determined Union gunners, Latimer was granted permission to withdraw, leaving but one four-gun battery in position, under cover. Upon the belated attack of General Edward Johnson’s division later that evening, those four guns reappeared to lend their diminished fire support, only to be overwhelmed by Federal counter-battery fire. It was during this event that Major Latimer received the wound that eventuated in his death the following month.³⁸

As to the remainder of the command, it too had felt the effects of Hunt’s “concentrated and coordinated” fire. Confederate artillerist Robert Stiles wrote later:

“Never, before or after, did I see 15 or 20 guns in such a condition of wreck and destruction as this battalion was. It had been hurled backward, as it were, by the very weight and impact of metal from the position it had occupied on the crest of the little ridge, into a saucer-shaped depression behind it; and such a scene as it presented – guns dismounted and disabled, carriages splintered and crushed, ammunition chests exploded, limbers upset, wounded horses plunging and kicking, dashing the brains of men tangled in the harness; while cannoneers with pistols were crawling around through the wreck shooting the struggling horses to save the lives of the wounded men.”³⁹

The ruins were said to have remained in place “for months.” What they represented was clear enough to see – yet would be replayed again, in larger scale, on the following day. Once again, the rising of the sun would highlight the power of the Federal defensive perimeter, with its’ useful multiple artillery platforms. Yet, from General Pendleton’s perspective, “[A]t nightfall, [on] the 2nd: On the left and in the center, nothing gained...”⁴⁰

The failure to break the Union line on July 2nd had dictated to the Confederates the need, yet again, to initiate plans for another round of offensive operations. However, in the pre-dawn darkness, Union planners along the Baltimore Pike line sector prepared what can best be described as the Gettysburg version of a “close fire support operation,” aimed at driving out the Rebel occupiers of the lower Culp’s Hill earthworks, taken the previous evening. According to General Geary, commanding the Second Division of the Twelfth Corps, dispositions were made, some “with the utmost silence and secrecy.” Working closely to position Lt. Muhlenberg’s batteries, “a simultaneous attack was made by artillery and the infantry of the Second (Kane’s)

and the Third (Greene's) brigades. This attack was most furious, but stubbornly met. Our artillery fire continued, by previous arrangement, for ten minutes."⁴¹

Specific, close-in use of artillery would be utilized throughout the morning, as the fury of the attacks rolled back and forth. General George H. "Maryland" Steuart recalled the effect such an intense fire unleashed in that tight area, played on his troops:

"[A]bout daylight, [on the 3rd], ...the enemy opened a terrific fire of artillery and a very heavy fire of musketry upon us, and [we]...charged towards the enemy's second breastworks, partly through an open field and partly through a wood, exposed to a very heavy fire of artillery... The enemy's position was impregnable, and...any further effort to storm it would have been futile...The brigade rallied quickly behind rocks,...where it remained about an hour,...exposed to a fire of artillery...more terrific than any experienced during the day..."⁴²

As to planning coordinated action with the artillery arm, on a basic level, between the two armies, it has been established that General Hunt was far more active and much more energetic an artillerist in the field than his adversary, General "Parson" Pendleton. Numerous comments were noted to this effect by various Confederate officers. Perhaps the most telling indicator is the absence of Gen. Pendleton during the meeting on the morning of July 3rd. Generals Lee and Longstreet, in the company of Colonels A.L Long, John J. Garnett, along with Major Charles S. Venable were also present, planning the actions of the flawed, fatal cannonade. The absence of General Pendleton, ostensibly the chief artillery officer in the army, was not then much regarded. As Captain Thomas J. Goree so inelegantly later reported, "Although nominally Chief of Artillery,[...] he was in the actual capacity of Ordnance officer, and, as I believe, miles in the rear.[...] It was a notorious fact and generally remarked that he was almost entirely ignored by Gen'l. Lee as Chief of Artillery, and the management of it given to the Corps Chiefs of Artillery."⁴³

General Hunt, by contrast, was the direct opposite of this; also a graduate of the Academy, but an officer who had stayed with his profession, adapting, embodying, and reflecting all the changes that had come to his chosen combat arm. He realized that on a topographically friendly, defensive battlefield, such as Gettysburg presented, the opportunities for a better equipped, better drilled, and better-ordnanced field artillery might play a significant role. Combined with his vigorous personal leadership, his alert command helped make General Meade's victory possible.

All these elements were to be tried once more, and yet again proved, during the final two grand trials of artillery at Gettysburg – the morning fights along the Culp's Hill sector, and the final cannonade.

Covering the Baltimore Pike, on the Morning Hours of July 3rd.

During the morning struggle on Culp's Hill, the North Carolina brigade of Confederate Brigadier General Junius Daniel moved in to assist Steuart's men in their plight. It proved a difficult task. Daniel, after noting "[t]he hill in front of this position was so strong it could not have been taken

by any force,” recorded his 32nd North Carolina regiment found themselves “[subject] to a heavy artillery fire in a much exposed situation...” The words of Col. Brabble, commander of the 32nd North Carolina, put it succinctly: “The third day, the regiment, with the rest of the brigade, moved to the left and front to the northeast of Gettysburg,...drawn up in front of [Culp’s] hill, upon which the enemy was posted. It here sustained a very galling fire of artillery...losing many men and doing but little damage to the enemy.”⁴⁴

One Connecticut soldier, swept up in the storm, recalled the intensity of the of the artillery supports directed into the battle-zone:

“[T]he sharp and almost continuous reports of the 12-pounders, the screaming, shrieking shell that went crashing through the tree-tops; the deadened thud of the exploding shell; the whizzing sound of the pieces as they flew in different directions...”⁴⁵

The localized intensity of the firing, as measured by its effectiveness, could prove a double-edged-sword when fighting in some of the tighter defensive positions around the hill. Col. Archibald L. McDougall, leading the 1st Division’s 1st Brigade, related the experiences of Col. William Wooster’s 20th Connecticut, whose soldiers spent five hours in an unfortunate position, directly in front of and below the Union guns, “holding the enemy back so that our artillery could have free play upon his columns without destroying our own troops.” Recalling Col. Wooster’s dilemma, McDougall reported, “He was not only required to keep the enemy in check, but encountered a great difficulty ...in protecting himself against the fire of our own artillery...His greatest embarrassment was, the further he pushed the enemy the more directly he was placed under the fire of our guns. Some of his men were severely wounded by our artillery fire.”⁴⁶

With the tight terrain, imprecise technology, and the close nature of this fighting, these sorts of “friendly fire” incidents, as we now know them, were perhaps well-nigh unavoidable. Given the chaos and proximity of this phase of battle, other Twelfth Corps units also sustained notable casualties from their own artillery; the 107th and 145th New York Infantry regiments were also subjected to stray fire from the batteries, as was the 46th Pennsylvania. Combat coordination of this intensity was a role both services were unaccustomed to and it was not surprising, therefore, to learn that an enraged Col. James L. Selfridge of the 46th after receiving fire in such a manner, attempted to draw his sidearm in the presence of Col. McDougall; suggesting that he might shoot such a careless battery commander.⁴⁷

In “attacking or defending the works of temporary fortifications” (rule #1 in General Hunt’s “Instruction for Field Artillery”), the experiences on Culp’s Hill had revealed much. Topography was of course, important in conjunction with command, communication, and leadership. Even with the untoward casualties produced by the close interplay of Federal infantry and artillery, the superior ability of Union gunners, inspired by leadership, had risen to the fore. Lt. Muhlenberg, in his post-battle report, took note of the wounded trees as the guide-post of his Twelfth Corps artillery brigade’s precision and came away pleased:

“The artillery was of essential service, and did excellent execution at this part of the field...[the] marks on the trees and immense boulders [sic]

contiguous to the line of intrenchments prove conclusively that the practice of the artillery was excellent and splendidly accurate.”⁴⁸

General Henry Slocum had high praise for the defense put forth by his artillery, reporting that “During the entire engagement all these batteries rendered most valuable service to our cause.”⁴⁹

In a letter to Gettysburg historian John Bachelder dated Nov. 10, 1865, General Alpheus Williams summed it up this way:

“Had the [Confederates] succeeded in forcing our lines, and getting a foothold on the Baltimore Pike in the centre of our defensive triangular formation, while Hill and Longstreet were ready to assault in front, it requires no great stretch of fancy to imagine the direful consequence. It is not too much to say therefore, that had the 12th Corps failed on the morning of July 3rd there would have been no victory at Gettysburg.”⁵⁰

The morning of July 3rd – wait; what about the “Great Cannonnade?” Well, we all know of that and the failings of the Confederate bombardment that afternoon. Those failings, ruthlessly examined by scholars in numerous publications, have highlighted the failings of the Southern artillery system, its’ ordnance, logistical, and leadership failures. Its grandest demonstration as a unified force was at Gettysburg. Yet that unity, at the direction of General Pendleton, failed to serve its leader, General Lee, to the best of its potential.

In the postwar years, one truly detailed work exclusively on the artillery of the Army of Northern Virginia was published – *The Long Arm of Lee*, by Jennings Cropper Wise. Published in Lynchburg, Virginia, in 1915, the reader is taken down a long road which includes the predictable obsequies at the death of Stonewall Jackson, Major Latimer, etc., and other such roadside events. Of Gettysburg, however, the author is still perceptive enough to look at certain flaws judiciously. One of them appears on page 658, in reference to “no uneasiness to the small supply of reserve ammunition at hand, a matter with which the gunners, as a whole, were unfamiliar, perhaps fortunately so.” It would not be deemed fortunate by the Confederate infantrymen of Hill’s and Longstreet’s Corps on the afternoon of July 3, 1863, for they would face the tightly organized, micro-managed, secret ammunition-trained artillerymen of General Henry J. Hunt, the man who had perfected defensive field artillery in the decade prior to Gettysburg. Between the two men, and the societies they served, there was no comparison. Hunt served his General with the eye and the training of a professional; Pendleton served his with the heart and skill of a minister. Their comparative performances, managing the respective artillery forces on the fields of Gettysburg, bore evidence of that.

About the Author:

Bert Barnett obtained his BS in History from Middle Tennessee State University in 1984, and has been with the National Park Service over 30 years. As a park ranger and interpreter, Bert has worked at a variety of battlefield and Civil War sites including Stones' River National Battlefield, Manassas National Battlefield, Gulf Islands National Seashore, Shiloh National Military Park and Kennesaw Mountain National Battlefield Park. Stationed at Gettysburg National Military Park since 1993, Bert received the United States Field Artillery Association's Honorable Order of St. Barbara in 1999 and has combined his avid interest in artillery with the study of the battle. He has contributed to other Gettysburg Seminars and is a published author in past Seminar Proceedings.

Footnotes

¹ Lt. Col. Tully McCrea, "Light Artillery: Its Use And Misuse" *Journal of the Military Service Institution of the United States*, James C. Bush, ed., (1898), p. 582.

² Ezra J. Warner, *Generals In Blue: Lives of the Union Commanders* (Baton Rouge; Louisiana State University Press, 1977), p. 242, hereafter cited as *Generals In Blue*.

³ *Ibid.*

⁴ Edward G. Longacre, *The Man Behind the Guns*, (South Brunswick & New York: A. S. Barnes and Company London: Thomas Yoseloff Ltd., 1977), p. 33, hereafter cited as Longacre; *Generals In Blue*, p. 242.

⁵ Longacre, pp. 34-42.

⁶ *Ibid.*, pp. 68-69.

⁷ *U. S. War Department Instruction For Field Artillery*, (New York, D. Van Nostrand, 1864), p. 2, hereafter cited as *Instructions For Field Artillery*.

⁸ Allen Nevins, ed., *A Diary of Battle: The Personal Journals of Colonel Charles S. Wainwright, 1861- 1865* (New York, Da Capo Press, 1998) pp. 193-194, hereafter known as *Diary of Battle*. The statement by Hooker to Wainwright that he "kn[ew] nothing" of the capability of two of his own officers, trained as artillerists, is most curious, and does Hooker no credit.

⁹ *U.S. Department of War, War of the Rebellion: A Compilation of the Official Records of the Union and Confederate Armies*, (Washington, D.C., 1880-1901), Special Orders 129, Series I, Vol. 25, Pt. 2, p. 471, hereafter cited as *OR*.

¹⁰ *OR*, Ser. I, Vol. 27, Pt. 1, pp.155-168; *OR*, Series I, Vol. 25, Pt. 1, p.252.

¹¹ *OR*, Vol. 27, Pt. 1, p. 241.

¹² L. Van Loan Naiswald, *Grape and Canister: The Story of the Field Artillery of the Army of the Potomac, 1861- 1865*,(New York, The Oxford University Press, 1960; repr., Washington, D.C.: Zenger Publishing Co., 1983), pp. 331-332, hereafter cited as Naiswald.

¹³ Longacre, p. 159.

¹⁴ Ezra J. Warner, *Generals In Gray: Lives of the Confederate Commanders* (Baton Rouge: Louisiana State University Press, 1959), pp. 234-235, hereafter cited as *Generals in Gray*.

¹⁵ *OR*, Vol. 25, Pt. 2, p. 838.

¹⁶ Jennings Cropper Wise, *The Long Arm of Lee*, (Oxford University Press, New York, 1959), p. 418, hereafter cited as Wise.

¹⁷ Edward Porter Alexander, *Fighting for the Confederacy: The Personal Recollections of General Edward Porter Alexander*, Gary Gallagher, ed. (Chapel Hill, University of North Carolina Press, 1989), p. 112, hereafter cited as *Fighting for the Confederacy*.

¹⁸ *OR*, Vol. 11, Pt. 2, p. 628.

¹⁹ Jeffery D. Wert, "William Nelson Pendleton" *Civil War Times Illustrated* (June 1974), p. 16.

²⁰ Douglas Southall Freeman, ed., *Lee's Dispatches: Unpublished Letters of General Robert E. Lee, C.S.A.* (New York: G. Putnam's Sons, 1915), p. 242.

²¹ Wise, pp. 567 -570.

²² Robert K. Krick, *Lee's Colonels: A Biographical Register of the Field Officers of the Army of Northern Virginia*, (Dayton, Ohio: Morningside Bookshop, 1992), p.386, hereafter cited as *Lee's Colonels*.

²³ *Lee's Colonels*, p.62; Wise, p.568.

²⁴ *OR*, Vol. 27, Pt. 2, p.609 -611; *Generals In Gray*, pp. 322-323.

²⁵ *OR*, Vol. 27, Pt. 1, pp.354-359, 747-755; Naiswald, pp. 361-362; At first glance, there seems to be some dispute about this, at the pen of the principals engaged. In Osborn's *Philadelphia Weekly Times* article, May 31, 1879, Osborn states, "General Howard directed Colonel Wainwright, Chief of Artillery of the First Corps...to take charge of all the artillery on Cemetery Hill east of the Baltimore pike, and myself all of the artillery on Cemetery Hill west of the same road. This order was not changed." Col. Wainwright, on the other hand, wrote in his "Diary of Battle," (p.237),..."General Howard ...desired me to take charge of all the artillery, and make the best disposition I could of it." Wainwright shortly thereafter references the arrival of Hancock, Osborn does not.

²⁶ Herb S. Crumb, ed., *The Eleventh Corps Artillery at Gettysburg: The Papers of Thomas Ward Osborn* (Hamilton, Edmonston Publishing, 1991), pp. xii-xiii, hereafter cited as *Eleventh Corps Artillery*; New York Monuments Commission, *New York At Gettysburg*, vol. 3; Herb S. Crumb and Katherine S.Dhale; eds., *No Middle Ground: Thomas Ward Osborn's Letters From the Field* (Hamilton; Edmonston Publishing, 1993), p. 143

²⁷ *OR*, Vol. 27, Pt. 1, pp. 232-233.

²⁸ *Eleventh Corps Artillery*, quoting Osborn's *Phila. Weekly Times* article, pp.22-23.

²⁹ *Eleventh Corps Artillery*, p. 22.

³⁰ *OR*, Vol. 27, Pt. 1, pp. 749, 228, 869-873, *passim*.

³¹ Sadly, lack of advancement in rank was not an unusual occurrence in the artillery of that era. Hunt had complained of this in his Chancellorsville report, stating, "Not only does the service suffer...from an the great deficiency of officers of rank, but a policy which closes the door of promotion to battery officers...induces discontent...and has caused many of our best officers to seek positions wherever they can find them..."

³² *OR*, Vol. 27, Pt.2, p. 604. Interestingly, no less an authority than Dr. Harry Pfanz, author of *Gettysburg – Culp's Hill & Cemetery Hill*, and a former artillery officer, observed the following concerning Confederate gun placements on July 2nd (Note# 14, Chapter 11): "I have wondered why Col. Brown did not try posting batteries west of Gettysburg south of Middle Street and, perhaps, somewhere along the Hanover Road west of Rock Creek when intense fire was needed. Guns placed in these areas would have been highly vulnerable to Federal fire but might have done splendid service. Yet we must presume that the artillerymen knew what they were doing." [My emphasis.]

³³ *OR*, Vol. 27, Part 2, p. 543.

³⁴ *OR*, Vol. 27, Pt. 2, p. 543; Memoir of John William Ford Hatton, (p.451), Maryland Artillery Folder (7MD Art), GNMP.

³⁵ *Diary of Battle*, pp. 242 -243;

³⁶ *Diary of Battle*, p. 243; *OR*, Vol. 27, Pt. 1, pp. 826,234. Perhaps some of this awe was the uncredited recognition due the gunners of Dance's Battalion.

³⁷ Memoir of John William Ford Hatton, (p.453), Maryland Artillery Folder (7MD Art), GNMP.

³⁸ Wise, pp. 652-653.

³⁹ Robert Stiles, *Four Years under Marse Robert* (New York, NY: Neale Publishing Co., 1903), p. 34.

⁴⁰ *OR*, Vol. 27, Pt. 2, p. 351.

⁴¹ *OR*, Vol. 27, Pt.1, p. 828.

⁴² *OR*, Vol. 27, Pt. 2, p. 511.

⁴³ Thomas W. Cutrer, ed., *Longstreet's Aide: The Civil War Letters of Major Thomas J. Goree* (Charlottesville: University Press of Virginia, 1995,) p. 159.

⁴⁴ *OR*, Vol. 27, Pt. 2, pp. 568, 572.

⁴⁵ John W. Storrs, *The Twentieth Connecticut: A Regimental History* (Ansonia, CT: Press of the Naugatuck Valley Sentinel, 1886) p. 93.

⁴⁶ *OR*, Vol. 27, Pt. 1, p. 784.

⁴⁷ Harry W. Pfanz, *Gettysburg: Culp's Hill & Cemetery Hill* (Chapel Hill, NC: University of North Carolina Press, 1993), p. 291.

⁴⁸ *OR*, Vol. 27, Pt. 1, p. 871.

⁴⁹ *OR*, Vol. 27, Pt. 1, p. 761.

⁵⁰ David L. & Audrey J. Ladd, Dr. Richard A. Sauer, eds., *The Bachelder Papers*, (Dayton, OH: Morningside House Inc., 1994) Volume 1, pp. 218-219.