



“The Batteries Fired With Very Decided Effect”

Confederate Artillery Operations on the First Day at Gettysburg

Bert Barnett

About 5:00 A.M. on July 1, 1863, Confederate infantry of Henry Heth's division of General Ambrose Powell Hill's corps began its fateful move toward Gettysburg, some eight miles distant. Supporting it were the artillery battalions of majors David McIntosh and William Pegram, positioned somewhere among the leading units of the advancing column. Containing thirty-six guns of varying descriptions, these two artillery commands were veterans of many previous fields. Although perhaps not anticipating a major engagement this day, they were supremely confident in their combat abilities. It was a confidence that represented the experience of many hard-fought battles.¹

Under fire since birth, the new nation and its army had struggled to outfit, equip, and organize. The problems in the artillery service seemed at first nearly insurmountable, with only forty-seven field guns (mostly obsolete six-pounders of Mexican-War vintage) available for use at First Manassas. Domestic production measures were implemented, but ultimately the number of guns produced in the Confederacy failed to meet demand. To rapidly acquire more, the industry-poor South employed a variety of stop-gap measures, including General Orders Number 90, issued on November 19, 1862. This directive instructed the “... chief of artillery ... [to] make

such dispositions of the teams attached to the battery wagons and travelling forges as will render them most available for the purpose of securing artillery captured on the battlefield.”²

Although designed strictly as a measure to bolster the strength of the army by acquiring more guns, it planted the seeds of something more disruptive within the service. Instead of turning in captured enemy artillery to a central redistribution point, units that captured them were often allowed to keep and use them. An example of the results may be seen in Confederate Ordnance laboratory chief John W. Mallett’s description of the armament of one battery as “... a scratch lot of guns consisting of two smooth-bore six-pounders, one twelve-pound howitzer ... and one three-inch iron rifle.” Turning the guns into *battle trophies* – something with which the units and their members had an emotional bond – later proved a serious impediment to standardization of gun types within batteries. A pernicious tendency to utilize these “mixed batteries” therefore persisted. The disparity in ranges between the differing types often caused problems, robbing units of their maximum tactical effectiveness on the battlefield, and making efficient ammunition re-supply more difficult.

Given the variable nature its of acquisition and distribution, technical artillery support was equally haphazard. Mallett further noted, “There was serious trouble at the arsenals and in the field, from confusion in regard to ammunition – trouble which was made worse by the gauges in use in the ordnance shops, which were not very accurate and often did not agree among themselves.” Wartime ammunition production was therefore a difficult undertaking, both in terms of acceptability and reliability. According to Colonel Edward Porter Alexander:

[W]e had to take what we could get without rigid inspection. How our rifled batteries always envied our friends in the opposition their abundant supply of splendid ammunition! For an unreliable fuze or a rifle-shell which “tumble[d]” sicken[ed] not only the gunner but the whole battery ... and the men fe[lt] handicapped.³

While dealing with these various material shortages, and simultaneously undergoing continual attempts to improve the arm, there had been only one honest military debacle of note: at Malvern Hill, Virginia, in July of 1862, and a battlefield loss, that September, at Sharpsburg, Maryland. Overall, though, the record was impressive. Most Confederate gunners felt they had fair claim to their commanders’ respect. In his report on the victory at the battle of Chancellorsville, General Robert E. Lee recognized the efforts of his gunners:

To the skillful and efficient management of the artillery the successful issue of the contest is in great measure due. The ground was not favorable for its employment, but every suitable position was taken with alacrity, and the operations of the infantry supported with a spirit and courage not second to their own. It bore a prominent part in the final assault which ended in driving the enemy from the field ... silencing his batteries, and by a destructive enfilade fire upon his works opened the way for an advance of our troops.⁴

The chief of artillery for the Army of Northern Virginia was the problematic General William Nelson Pendleton, an 1830 graduate of the U. S. Military Academy. Although standing fifth in his class, he only spent three years in the service before resigning his commission in favor of the Episcopal ministry. Upon the secession of Virginia, Pendleton returned to arms, becoming captain of the Rockbridge Artillery. He rapidly rose in rank, being named chief of artillery for the Department (later Army) of Northern Virginia in October of 1861. In March of 1862, he became colonel and chief of artillery to General Joseph E. Johnston.⁵

Following Johnston’s wounding at Seven Pines on May 31, he was replaced by General Lee. The new commander retained Pendleton, his pastor, as the army’s artillery chief. After this

transition, Pendleton submitted a plan for reorganization within the artillery service. Lee adopted these changes, and on June 22, promulgated General Order 71, which designated a chief of artillery for each infantry division, and created a general artillery reserve. Although Pendleton was skilled in making organizational improvements, and would continue to do so throughout the war, he was not well fitted for tactical command. Two episodes connected with the embarrassments of 1862 – one in a major way, one in a minor one - highlighted Pendleton's defects as a commander. These would surface again at Gettysburg.

At Malvern Hill, the Confederates faced a Federal battle line well defended with artillery. Pendleton, commanding the reserve artillery battalions of the army, was unable to commit them. As he reported,

Tuesday morning, July 1, was spent by me in seeking for some time the commanding general, that I might get orders ... and ... in examining positions near the two armies, towards what could be done with a large artillery force, and especially whether any position could be reached whence our large guns might be used to good purpose ... yet no site was found ... and no occasion was presented for bringing up the reserve artillery.⁶

Twenty vitally needed batteries went unused on that day, at Pendleton's direction. Many of the infantry losses were directly attributable to the counterbattery fire that the reserve would have provided. While Lee refrained from criticizing Pendleton in his report, others, at least indirectly, did not. General D. H. Hill called the poor use of Confederate artillery that day "farcical."⁷

A little over two months later, on the retreat from Antietam on September 19, Pendleton was again found exposed and wanting. Charged with guarding the ford across the Potomac at Shepherdstown, he reacted hastily as nervous infantry supports collapsed around his batteries in the face of a surprise advance by Union troops. Unable to bring any control to the situation, Pendleton withdrew to headquarters, arriving there after midnight. According to one account, Pendleton rousted Lee, "recounted his afternoon's experience, and announced that the enemy had captured all the reserve artillery."

"All?" exclaimed Lee.
"Yes, General, I fear all."

Pendleton had badly misjudged the situation. Fearful that he had lost forty-four pieces, in fact he had only lost four, due to the quick action of a subordinate. However, the implications of this incident, coupled with the memory of Malvern Hill, played hard on Pendleton's reputation. Doubts began to cement in the minds of many of his field officers regarding his fitness for combat command. One of them, Lt. Hamilton Chamberlayne, commented, "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." Although Lee directly refrained from overtly castigating his artillery chief, he curtly noted in the official report his underlying failure: "General Pendleton was left to guard the ford with the reserve artillery and about 600 infantry. That night the enemy crossed the river above [Pendleton's] position, and his infantry support giving away, four of his guns were taken."⁸

In spite of these failings, Lee retained his artillery chief for the remainder of the war. Aware of Pendleton's faults, Lee still highly valued him as an organizer. Following the army's return to Virginia in October, he oversaw the reconstitution of the artillery service yet again. The following February, Pendleton vastly improved the efficiency of the Confederate field artillery service by introducing the battalion system.

Organizationally, the battalion system provided that each infantry division in the Army of Northern Virginia be provided with a battalion of artillery (usually, four batteries of four guns each), commanded by a corps artillery chief, who was responsible to the corps commander. Initially, a general artillery reserve was preserved, but it was abolished after Chancellorsville. Pendleton also attempted at this time to introduce gun standardization within batteries, but this idea met with a certain irrational resistance and was later quietly dropped. Nonetheless, the battalion system provided for far easier massing of artillery on the battlefield. Earlier, it had been necessary for officers wishing to achieve concentrated firepower to “borrow” guns from other commands, and not always successfully. Additionally, the special needs of the batteries would now be properly looked after by an artillery officer, not by some already overburdened infantry officer laden with the responsibilities incident to his regular command. While still a support arm, the artillery would now be accountable to its own.⁹

The strength of this system was two-fold. One part improved organization, the other portion a skilled and inspired field level leadership to drive it. These new positions required sharp officers. Taking advantage of the experience within its ranks, the arm made way for a dedicated cadre of carefully scrutinized artillerists, some freshly promoted, to lead their new battalions into battle. Of course, certain political sensitivities were maintained – the delicate proportion of Virginians versus non-Virginians was noted in Pendleton’s recommendations – but he selected well.¹⁰

As noted above, the improved battalion system had produced remarkable results at Chancellorsville, where the artillery arm functioned “with alacrity.” Of fourteen captured Federal artillery pieces, twelve were immediately pressed into Confederate field service. Additionally, forty-nine more twelve-pound “Napoleon” guns, the product of Richmond’s Tredegar foundry, had been received throughout the early spring of 1863. Cast mainly from obsolete six-pounders, these recycled pieces reflected the growing confidence of the Confederates. As a result, when the army again turned north, the gunners and their officers felt ready. The ultimate test, though, still lay before them in the pre-dawn haze of July 1.¹¹

The artillery did not initially lead the line of march from Cashtown that morning.

Positioned to support the infantry were the artillery battalions of majors William J. Pegram and David G. McIntosh. Considered “in reserve,” they were slated to follow behind the infantry divisions of generals Henry Heth and William Dorsey Pender.

Young “Willie” Pegram, commanding the first battalion in the advance, was the ideal man to have in a forward position, if one was looking to bring on an engagement. One cannoneer noted that he was “*rather* too fond of fighting. In fact, he has been known to beg to be allowed to take his batt’n into a fight.” Cursed with poor eyesight and dependent upon thick glasses, Pegram would often scout close along the battle line for good gun positions. He would fight close, it was said, because he couldn’t see. The familiar sight of Pegram riding rapidly past his column prior to a battle eventually provoked this reaction: “There’s going to be a fight, for here comes that damned little man with the spec.’s!” Possessed with this eager zeal for battle, he appeared among his troops on June 30, ready to resume his battalion command, although previously laid low by a fever. One of the first officers to spot the slight officer upon his appearance in Cashtown was General Lee, who shortly related



Major Willie Pegram. Wise, *The Long Arm of Lee*

to General Hill, "I have good news for you; Major Pegram is up." Hill answered, "Yes, that is good news."¹²

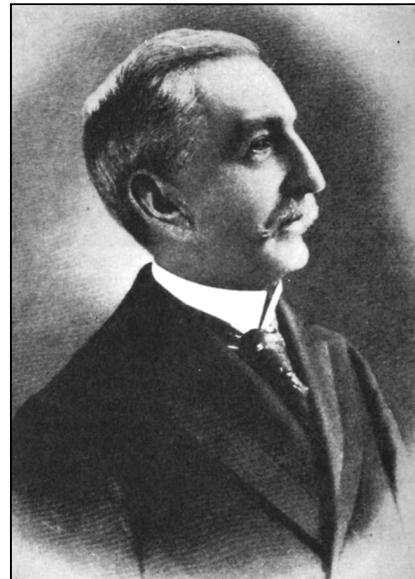
Five batteries, containing twenty guns, comprised Pegram's battalion. Four of the batteries were from Virginia. Three reflected a Richmond bent, and quite a class distinction. Two wealthy Richmonders, William G. Crenshaw, owner of a large woolen mill, and John B. Purcell, had outfitted two of the artillery batteries at the outset of the war. The Crenshaw battery, led by First Lieutenant Andrew B. Johnston, contained two Napoleons and two short-range twelve-pound howitzers. Captain Joseph McGraw led the Purcell battery, with its four Napoleons. On the other side of the scale, the Letcher battery, though named for Virginia's governor, was noted for containing men "raised from Castle Thunder," the city's notorious wartime prison. It was commanded by Captain Thomas A. Brander, and armed with two Napoleons and two ten-pound Parrott rifles. The Fredericksburg battery, commanded by Captain Edward A. Marye, was similarly armed, possessing two Napoleons and two three-inch rifles, although some information suggests Marye's rifles were in fact Parrott guns. The only battery not from Virginia, the Pee Dee Artillery of South Carolina, boasted four three-inch guns. With only eight rifled pieces in the entire battalion, this battery held half that strength.¹³

David Gregg McIntosh, commanding the other reserve battalion of artillery for the 3rd Corps, was a South Carolinian by birth but a lawyer by profession. In late July of 1861 he was elected captain in Company D of the 1st South Carolina Infantry. He kept that rank when the unit converted to artillery, commanding the Pee Dee Light. McIntosh was promoted to major in March of 1863. After the war, he would return to the bar, becoming president of the Maryland State Bar Association and a prolific author. For the moment, however, his direct responsibility lay with four batteries directly under his command. His battalion was also heavy with Virginians; three of the four batteries came from the Old Dominion.¹⁴

His battalion boasted sixteen guns. The Danville Artillery, under the command of Captain R. S. Rice, had four Napoleons. Both the 2nd Rockbridge Artillery, under Lieutenant Samuel Wallace, and Captain Marmaduke Johnson's Virginia battery were identically armed, each with two Napoleons and two three-inch rifles. The most unique armament found on either side of the lines during the battle was the section of two 2.75-inch breech-loading British Whitworth guns possessed by the Hardaway Artillery of Alabama. Capable of firing at a distance of five miles, the battery also had two eminently more practical three-inch rifles.¹⁵

Although Brigadier General James J. Pettigrew had made an abortive advance toward Gettysburg on June 30 and reported the presence of troops there, General Hill had authorized another advance on the following morning. Not wishing to be rebuffed, as on the day before, the column was reinforced: It now contained Heth's entire division, and the two artillery battalions of McIntosh and Pegram. The remaining artillery of the corps followed behind General Richard H. Anderson's division, still some distance to the west. Most of it, under debatable circumstances, would fail to see combat on July 1.¹⁶

The artillery was too slow and ponderous to lead the column. However, it could do one thing in place of the missing cavalry: search out the distance ahead. Although the official report for Pegram's battalion states it was transferred out of the reserve on the evening of June 30, the move caught at least one cannoneer by surprise:



Major David G. McIntosh. Post-war view. Confederate Veteran Magazine

Now, what was our astonishment that [next] morning when the skirmishing began, to see our “fighting Major” gallop up to our camp, crying out “Harness and Hitch!”, which, being quickly done, off he took us from Gen’l. Pender in reserve, to Gen’l. Heth, in advance of the whole army. Our boys are never sought for in vain, and can always be depended upon.¹⁷

The movement forward began about 5:00 A.M. As the Confederates began to close in on Gettysburg in the early daylight, General Heth attempted to probe what lay ahead. Within two miles of Gettysburg, near where Marsh Creek crossed the Cashtown pike, he called for the artillery to feel his front. A section of long-range rifled pieces from the Fredericksburg battery was called forward and began to unlimber in the road near the Samuel Lohr house. As they did so, a man appeared on the porch, exclaiming, “My God, you are not going to fire here, are you?” and quickly disappeared. Undeterred, the gunners proceeded to unleash “some eight or ten rounds” into the woods to the left of the pike.¹⁸

The target of those first few shots, “a reconnoitering party of the enemy,” was a portion of Union Brigadier General John Buford’s cavalry division, posted to watch for just such an advance. A member of the 8th Illinois Cavalry, Lt. Marcellus Jones, wrote many years afterward of observing the Confederates come, and delivering the first Federal shot in response:

A little after 7 o’clock, the enemy’s advance, consisting of Archer’s Tennessee brigade, followed by Davis’ and Brockenbrough’s brigades – appeared in sight on the hill west of Marsh Creek a mile or so away. Upon sighting our picket post, they deployed skirmishers on either side of the road ... I took aim at an officer on a white or light gray horse and fired – the first shot at the battle of Gettysburg.¹⁹

This first clash of arms was heavy with portent, as it confirmed Pettigrew’s report of the previous day. It also served to announce to the army that trouble was brewing up front. Captain Charles Andrews, of the 3rd Georgia infantry, in General Richard Anderson’s division and still some miles off, wrote that he was “resting for few moments on top of the mountain” to the west of Gettysburg when “the boom of a heavy gun was heard far to the front.” He recorded that the impact of the sound was not lost on any of the men. “Each soldier looked into the faces of his comrades, shouldered his musket, and quietly took his place in ranks.” The Confederate artillery had opened the ball.²⁰

The initial artillery shots, and *thus the first shots of the battle*, were fired from near the Samuel Lohr house, about two miles from town, and some distance to the west of where the present-day, so-called “First Shot Marker” highlighting Lieutenant Jones’ response, is located. It is the first of several ridges the Confederates would encounter on this day. The topography from Cashtown to Gettysburg is a string of high hills that gradually recedes into a series of ridges running roughly northeast to southwest. About one mile east of that point rises a wide, flat ridge known as “McPherson’s Ridge,” though it actually broke down into eastern and western segments. This terrain offered something to both sides at different times during the fighting on July 1. A little over half a mile further east, closest to the town, lay Seminary Ridge, approximately three-quarters of a mile from the town square. This was the southern extension of Oak Ridge, which travels further to the north. The most prominent feature of the ridge was 600 foot-high Oak Hill, near the northern terminus of Oak Ridge. After passing through the area directly west of town, Seminary Ridge continues to extend south for some distance. In addition to the undulating ridgelines were a number of key man-made features. Perhaps most significant of these was the road network of the town itself, with its ten major roadways. Of these, the ones leading from the west and the north would prove critical, along with the unfinished railroad bed that roughly followed the Cashtown pike to the north. As it cut through the uneven terrain, large stones had been brought in to be utilized as fill for the low spots. In addition to the municipal

developments were the usual “personal” improvements of fences and occasional outbuildings to be contended with. All in all, it proved an intricate stage for the forthcoming fight.

Having thus heralded their arrival, the leading batteries of Hill’s corps attempted to do what they could to assist the advancing infantry. Pegram’s battalion now moved along the north side of the pike, following the advance of Brigadier General Joseph Davis’ brigade. McIntosh’s battalion followed along the south side of the road to aid Brigadier General James J. Archer’s brigade. However, communications between the attacking infantry and their artillery supports was lacking. Instead of coordinating their firepower against the Federal cavalry’s numerically inferior force, the individual batteries were left in great measure to act independently, without any defined plans or objective. “Subjected to a heavy artillery fire,” opined one chronicler, “Heth would almost certainly have been able ... with Pegram and McIntosh to seize Buford’s position before the latter was reinforced.”²¹

Given the nearly unpredictable nature of the meeting engagement, perhaps that was unrealistic. C.R. Fleet, of the Fredericksburg battery, wrote that after the initial firing toward the Federals, his battery “proceeded on our march for a mile or thereabouts and took position in the edge of a beautiful oak grove on the left of the pike... Here we were soon hotly engaged with the enemies batteries.” Along with them now were firing the Purcell and Crenshaw batteries, all returning fire toward a single enemy battery – the 2nd U. S., Battery “C,” commanded by Lt. John H. Calef. Dispersed in sections by General Buford along McPherson Ridge to protect the Cashtown pike, as well as to give an impression of strength, Calef’s six three-inch rifles covered a front of some 600 yards as they engaged the Confederate guns. Fleet recorded that in this early stage of the fight, his battery received no casualties. However, a stray shot from one of Calef’s guns mortally wounded Lieutenant John Morris, the battalion’s ordnance officer. The Confederates exchanged shells with Battery C at this position “for perhaps a half or one hour.” Following this, the artillerists moved down into a plain, where [they] were joined by the other batteries of the battalion [Pegram’s].”²²

The batteries then crossed Willoughby Run and moved to the crest of Herr’s Ridge, “a commanding position on the right and left of the pike, one mile distant from Gettysburg.” From this elevated location, the Confederate gunners had a splendid view of the field. All, save the two short-range twelve-pound howitzers of the Crenshaw battery and one of Lieutenant William E. Zimmerman’s rifled pieces, disabled while moving into position north of the Cashtown road, were employed in the attack. Shortly thereafter, they were assisted as the sixteen guns of Colonel McIntosh’s battalion arrived and took up positions extending to the south. A combined total of thirty-three guns therefore supported Heth’s advance. Initially, all of McIntosh’s guns faced to the east. However, Captain Marmaduke Johnson’s four guns, bolstered by two more three-inch Ordnance rifles from the Hardaway Alabama artillery, were sent approximately one mile south toward the high ground near the intersection of Herr’s Ridge and the Fairfield road, to protect the right flank of the Confederate line. The two other guns of the Hardaway battery, the long-range Whitworth guns, were posted with Pegram’s guns, just to the right of the Cashtown road. A total, then, of twenty-seven Confederate guns faced the 1st Corps from the west.²³

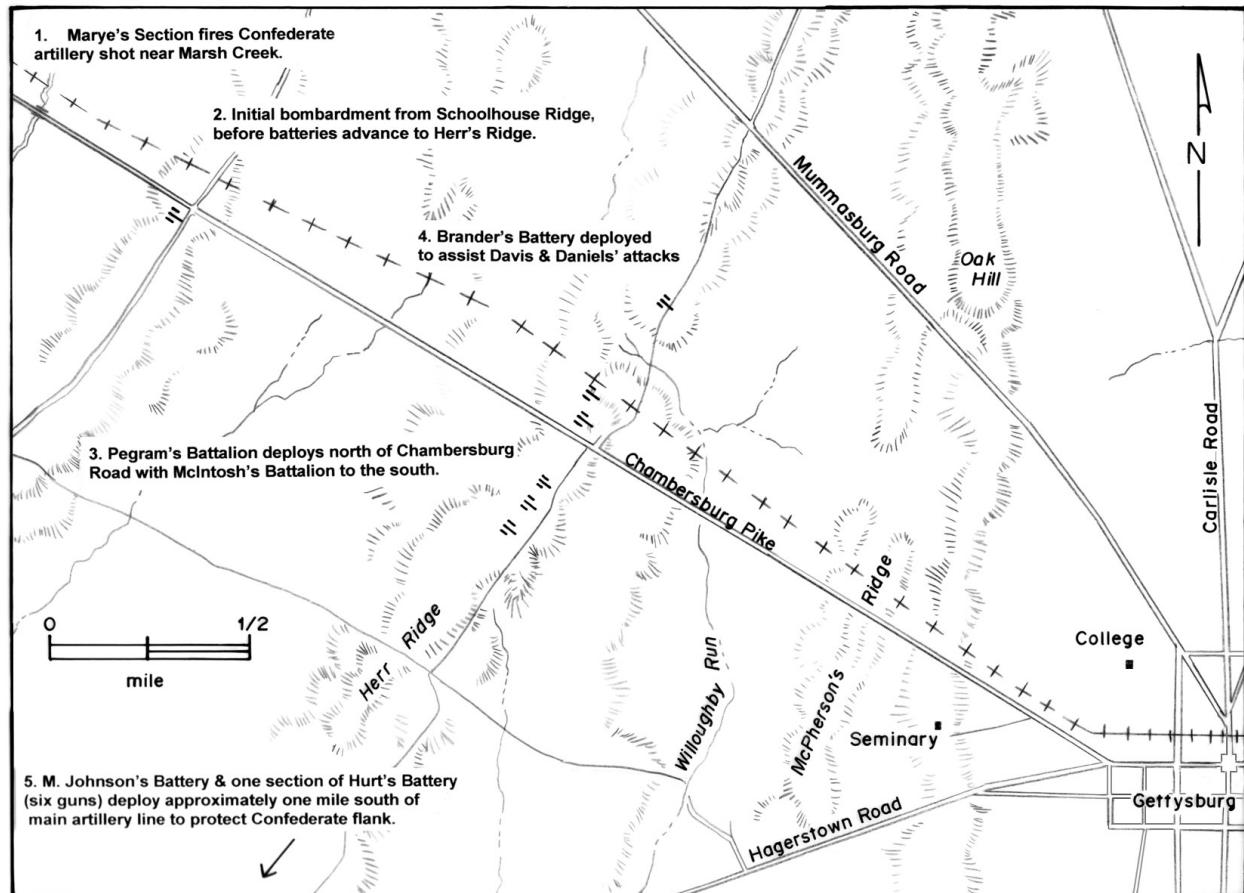
The earliest 1st Corps battery to oppose General Heth near the pike was Captain James A Hall’s 2nd Maine. Directed by General John Reynolds to advance and hold the forward position of the depleted horse artillerists, Battery “B” immediately drew concentrated counterbattery fire from the Confederate batteries 1,300 yards off as their guns went into position on the crest. The Federal commander’s intent was to bait the impulse of the Confederate gunners to “duel” at long range and divert them from the true threat – the impending hordes of Union infantry rushing up to establish battle lines. According to the artillery doctrine of the era, “to break an enemy’s line or prevent him from forming” was a paramount function of the arm, and the critical one of the moment.²⁴

Hall’s advanced placement had been a sacrificial diversion. While the superior number of Confederate guns available spent only a short time focusing “shot for shot” against the Maine

artillerists, overtaking the battery had been left to the infantry. The forward placement of the battery had been a “red meat target” dangled before the Confederates; a distraction that helped to permit the arrival and deployment of Federal infantry units on the ridgeline.

The advancing Federal infantry brigades of Brigadier General Lysander Cutler and Colonel Roy Stone soon found themselves exposed to a storm of flying iron as they were subjected to an introductory shelling from Pegram’s and McIntosh’s batteries. However, as the late-morning Confederate infantry advances stalled, the pace of their supporting artillery elements temporarily slowed as well. By 1:00 P.M., Colonel Charles Wainwright, commander of the Union’s 1st Corps artillery brigade, had instructed Lieutenant Calef’s horse gunners to return to the front and cover Hall’s now shattered battery as it withdrew for the second time. He also directed Captain Gilbert Reynolds to bring his Battery L, 1st New York up to assist. As the guns moved into position, however “[T]he enemy opened another 6 [sic] gun battery at easy range due north.”²⁵

The fresh Confederate fire came from Lieutenant Colonel Thomas H. Carter’s battalion, attached to General Robert Rodes’ division of General Richard S. Ewell’s 2nd Corps. Known



Dispositions of Confederate Third Corps artillery employed against Union 1st Corps west of Gettysburg. Map by John Heiser.

among the men as “Old Raw Hide,” Carter was a cousin of Robert E. Lee. An 1849 graduate of the Virginia Military Institute who had also studied medicine at the University of Virginia, Carter took to the artillery arm once the war began as captain of the King William Artillery. Known for displays of personal courage, he once so impressed General Daniel H. Hill while directing his

guns under an intense fire that the latter had commented he would rather be the captain of the King William Artillery than the president of the Confederate States.²⁶

Carter's battalion consisted of sixteen guns, equally parceled out among four batteries. Three were from Virginia, while the fourth, Captain William J. Reese's "Jeff Davis Artillery," hailed from Alabama. Reese's unit contained four three-inch rifles, recently captured at Martinsburg. Captain Charles Fry's Orange Artillery also boasted long-range pieces, with two three-inch rifles and two ten-pound Parrott guns. Thomas Carter's old outfit, the King William Artillery, was now commanded by his half-brother William, also a captain. This was the only mixed battery in the battalion, with two Napoleons and two ten-pound Parrots. The only completely smoothbore battery under Carter's command was the Morris Artillery, led by Captain Richard C. Moore Page. It consisted of four Napoleons.²⁷

Lieutenant Colonel Carter would demonstrate considerable flexibility in handling his battalion that afternoon, operating at the nexus between the western and northern "theaters" of the field, where the Union 1st and 11th corps would attempt to link. He also perhaps showed a bit of the impulsiveness that had once impressed General D.H. Hill. Sent on ahead of his divisions' infantry, Carter proceeded admirably to exploit Oak Hill for its maximum tactical value. He placed Carter's and Fry's guns on high ground, facing south. There, they "fired with very decided effect," enfilading the Union 1st Corps and its batteries. This action immediately announced the Confederate occupation of the hill and may have generated undue haste on the part of their infantry to advance without more coordination. Rodes reported he had "no troops facing [him] at all" when these guns first arrived on the heights. However, once the salvos began, much movement would be evident.²⁸

Complimenting his adversary, General Wainwright later wrote of the opening firing from Oak Hill:

Both their batteries fired well, and had us so completely at the angle of a cross-fire that we were obliged to withdraw. I moved them both [Calef and Reynolds] across the Cashtown road about 200 yards to the south where they would be sheltered by the woods from the rebel battery up the road, and engaged the new one to the north... We kept up a slow fire in reply to this rebel battery from our new position for nearly an hour ...²⁹

Wainwright's gunners attempted to provide some covering counter-battery fire. The three-inch Ordnance rifles of Battery B, 1st Pennsylvania light artillery were turned from the west to the north to reply to the two batteries on Oak Hill. As the Union infantry had shifted somewhat, the Unionists found that they could fire from that location, a meadow south of the Cashtown pike, approximately 450 yards west of the seminary. There, they "immediately opened upon Carter's guns, keeping up a warm contest and an accurate fire until Rodes' infantry came in sight." Although the Confederates reported that their Federal counterparts "fired slowly," they were much exposed in that location, and suffered notably from Union counterbattery fire. Perhaps the slow firing was done to better their accuracy. At this location alone Captain Carter's battery had four men killed outright, with seven more wounded. The Confederate units, however, kept to their work.³⁰

As the artillery crossfire intensified along McPherson Ridge, it caused considerable difficulty among much of 1st Corps infantry line. This was especially true among the men of



*Lt. Colonel Thomas Carter. Wise,
The Long Arm of Lee*

Cutler's exposed brigade, which began to retire hastily. To their south lay Colonel Roy Stone's Union infantry brigade, resting just on the reverse crest of East McPherson Ridge near the Cashtown pike. Until the arrival of Carter's guns, these men were somewhat protected from the "desultory fire of artillery" still coming from Pegram's and McIntosh's guns to the west. Now subject to a much deadlier enfilading fire as many more well-aimed shells tore into the men, Stone's position became "hazardous and difficult in the extreme." He placed two of his units, the 143rd and 149th Pennsylvania infantry regiments, on the Cashtown road and faced them north.³¹

These unfortunates were unable to rapidly change position as the Federal batteries had done, and Carter's gunners hit them hard. One shell took out eight men, killing three instantly and wounding five more, two of those mortally. A wounded man from the 149th Pennsylvania came hopping down along the line on hands and feet crying, "I am killed, I am killed," followed by the harsh observance of his hard colonel – "The hell you are killed, go back to your place." The poor fellow stretched himself on the opposite bank and died. Compelled to stand and take it, the men of the 149th Pennsylvania subsequently reduced their losses by shifting their colors to the west and north, away from the body of the regiment. Unaware of the deception, Confederate artillerists continued to fire toward them, thinking the unit had moved.³²

But while they continued to shell the enemy's colors, "large bodies of men," portions of Carl Schurz's division of General Oliver O. Howard's 11th Corps, were advancing northwest from the town to reinforce their beleaguered 1st Corp comrades. At that moment, the right flank of the 1st Corps appeared exposed and vulnerable as it lay near the southern slope of Oak Hill. With the emergence of the 11th Corps nearby, avoiding a consolidation of the two Union forces became preeminent for the Confederates. They now required artillery support capable of fire in two directions. General Rodes therefore requested that his other two batteries, under captains Page and Reese, be brought forward and placed on the left of his line, near the southern foot of Oak Hill. For the moment, however, he left both Carter's and Fry's batteries in position, enfilading the 1st Corps line.³³

As elements of Schurz's division began to appear within range, they drew fire from Carter's repositioned units. A survivor of the 45th New York Infantry, one of the first of the 11th Corps units to emerge from town, recalled "[T]he enemy's twelve-pounder battery on Oak Hill ... caused great devastation in our ranks." Another member of the same unit remembered "Ewell's two batteries sen[t] shot, shell, grape & canister into & beyond our ranks as fast as they could." The Confederate gunners did not enjoy their artillery supremacy very long; a well-drilled Union battery under the command of Captain Hubert Dilger shortly appeared "in the valley north of Gettysburg" and began to make life difficult for the men in Page's battery. Dilger, the commander of Battery I, 1st Ohio Light Artillery, with six Napoleons, was an excellent gunner. He was thoroughly familiar with his pieces, and made the most of close-in artillery fighting. Utilizing this tactic, with the freedom to easily shift positions on the open plain south of Oak Hill, he exploited the vulnerability of Page's restricted position against the slope of the hill. Firing obliquely, the Federals took a heavy toll on Confederate artillerists in a short time, leaving "2 men killed, 2 mortally wounded, 26 more or less badly wounded," in addition to seventeen dead horses and five ruined gun carriages. Captain Reese's Jeff Davis rifle battery, in support nearby, sustained notably fewer losses.³⁴

Carter, in an admirable demonstration of restraint, did not report just who posted Page's battery. This apparently had been the day for general officers to interfere with Carter's artillery, as earlier, generals Ewell and Rodes had overseen the placement of one other of his batteries, and on this occasion Rodes had personally placed Page's. Officers without artillery backgrounds often tinkered with the arm, and not always with the best results. At the height of the bombardment, Captain Page sent for Colonel Carter for some assistance. Upon seeing the condition of the battery, with its guns nestled on the hillside above each other "like seats in an amphitheater," catching nearly every Federal shell fired at it, a frustrated Carter confronted Rodes with the agitated greeting, "General, What fool put that battery yonder?" An awkward silence of a

few moments ensued, and Carter was quietly instructed to “take care of it.” He was later advised of Rodes’ placement of the battery. Diplomatically, Carter observed that had he been in Rodes’ shoes he would have done the same thing.³⁵

As the artillery fire intensified, Rodes’ infantry moved up. Colonel Edward A. O’Neal’s Alabama brigade was in the forefront of the division during the shelling. Samuel Pickens, of the 5th Alabama, recalled its length and intensity this way:

We halted and lay down for some time at a fence and witnessed an artillery duel between one of our batteries stationed about 150 yds [sic] in front of us & a Yankee battery away to our left. 5 or 6 dead horses & 1 or 2 broken caissons or gun carriages were left by our battery when it moved off.³⁶

Captain Robert E. Park, of the 12th Alabama, wrote “[The] brigade was shelled fiercely ... Capt. Jas. T. Davis, of Co. “D,” was killed near me, and his brains scattered upon me ... Another shell exploded in my company and wounded Corporal J.H. Eason and private Lucius Williams, while we were halted in a hilly woods.” Colonel O’Neal termed the bombardment between Carter’s artillery and the Union guns “severe,” claiming that it lasted more than an hour.³⁷

Meanwhile, the left brigade of Rodes’ division, under George Doles, had reported a “large force massing on [his] front and left, near the Heidlersburg road.” These 11th Corps reinforcements were shortly afterward accompanied with some support for Dilger’s smoothbore battery as well; four three-inch rifles of the 13th New York Light Artillery, under Captain William H. Wheeler. To deal with this, Captain Carter’s battery was moved to the eastern side of the foot of the ridge, in a good position to support the Georgians. This meant that only Fry’s four rifles were left on the southwesterly slope, but in concert with those firing from the west, they shortly proved sufficient on that front.³⁸

Facing the Confederates from Oak Ridge was a Union brigade under the command of General Henry Baxter. As Carter’s guns boomed, it maneuvered along the ridgeline, toward the Mummasburg road and the brigades of Confederates advancing southerly from the hill. As the Federals refused their right to the north along the road, Rodes’ two lead brigades deployed in an uncoordinated manner as they moved from the hill. This resulted in a series of ill-delivered piecemeal attacks against the northern end of the ridge. As this debacle transpired, O’Neal’s advancing Alabamians were initially repulsed in disorder. Baxter then faced north to receive Alfred Iverson’s North Carolinians, who closed within fatal distance, having already fairly suffered from Union artillery fire.³⁹

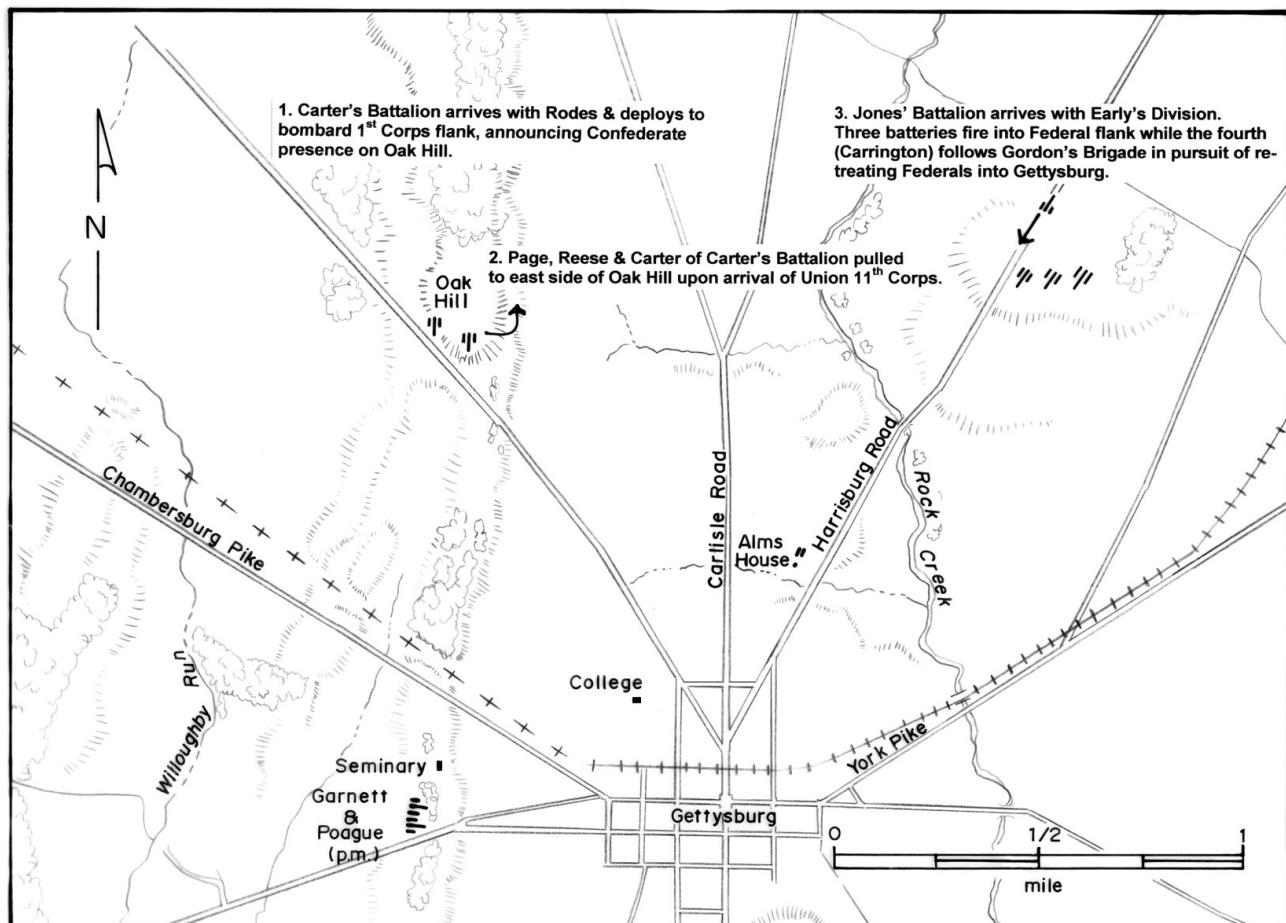
As their attack ground to a halt, portions of Junius Daniel’s supporting brigade pushed forward past Iverson’s right and continued to descend into the field, toward the railroad cut and Stone’s Pennsylvanians. The men of the 149th Pennsylvania, sensing the threat, advanced to the north from the Cashtown pike, alone and unsupported, passing over and across the cut, occupying it before the Southern infantry arrived. Although able to resist for a short while, this brave group of groundlings had placed themselves in a very bad location to receive the combined effects of the massed batteries to the west. Major McIntosh observed:

At the time General Ewell’s batteries occupied the enemy’s attention, I opened on them a flank fire, which caused them to leave the position in haste. A fine opportunity was afforded at this time of enfilading a heavy column of the enemy’s infantry, formed in the railroad cut and along a line of fence, which was employed to advantage by my batteries in connection with Major Pegram’s, and the enemy, entirely discomfited, disappeared from the field.⁴⁰

Major Pegram, constantly refocusing his artillery where it would have the maximum impact, had placed Captain Thomas A. Brander's battery on a high position directly in the rear of Davis' brigade skirmish line, where it was notably in advance of the main line. In that exposed location, on a spot of high ground east of Willoughby Run and north of the Cashtown pike, the Confederates "suffered considerably" from the return fire from the combined force of Federal guns, most likely the rifled guns of Battery B, 1st Pennsylvania, still in their previous location, and the six Napoleons of Lieutenant James Stewart's Battery "B," 4th U. S., straddling the railroad cut, some 500 yards to the east. Nonetheless, from that spot the battery inflicted serious casualties on the Federal infantry in return. As the men of the 149th Pennsylvania began to cascade through the railroad cut, the Southern guns fired obliquely into it, turning out the Union infantry in "rough-roll-and-tumble" style. As they did so, one Confederate gunner remembered watching:

Martin Douglas, a great big Galway Irishman, a member of the Letcher battery, fire his gun ... Before pulling the lanyard, he would, every time, cross himself and mutter, "Lord, be marsiful to their poor souls."⁴¹

Under such pressure, the western extension of the cut was soon swept of Federal soldiers. Back on Oak Hill, the renewed attack against Baxter's determined brigade utilized the additional support of two regiments of Brigadier General Dodson Ramseur's brigade. Additionally, artillery fire had continued from Fry's battery, rallying portions of reformed elements of O'Neal's command. Together, this force moved forward, highlighting the Civil-War era version of "close



Deployments of Confederate Second Corps artillery against Union 1st and 11th Corps, northwest, and north of Gettysburg. Map by John Heiser.

fire support.” By the explicit order of General Rodes, the battery was “pushed closely after” the advancing infantry --- an unusual move designed to strengthen O’Neal’s potentially shaky troops. During the pursuit of the Federals, the battery paused intermittently to shell the withdrawing Unionists. Throughout this fight, the gunners demonstrated “energy, coolness, and skill,” aiding the infantry “materially” in driving the enemy back toward the town.⁴²

On the left of Rodes’ division, there had also been much activity. Earlier, the decimation of Page’s battery at the hands of Dilger’s gunners had weakened the battalion’s firepower toward the 11th Corps. General George P. Doles’ requisition for reinforcements had prompted the removal of the King William Artillery to the southeastern side of the hill, which placed three of Carter’s four batteries supporting the left of Doles’ brigade, now threatened by the appearance of Brigadier General Alexander Schimmelfenning’s division. Together, these three units “came up fighting,” and delivered to the emerging Federals a punishing check against their advance, “driving back the infantry and artillery of the enemy from the threatened point.” According to Carter, his half-brother’s battery was “particularly effective” during this action.⁴³

However, the evidence suggests some of that “effectiveness” may have proved counter-productive. As the individual regiments of Doles’ brigade had to maneuver semi-independently, changing fronts as required during the advance, several of the batterymen in the rear apparently became confused as to just who was friend or foe. Doles complained that on July 1, his brigade “was subjected to and did receive” enough of a bombardment from “one of our own batteries” to kill and wound several men. He pointed out the location from where the shells had come, and described the unit as a “two-gun battery (brass pieces).” Of the six Confederate bronze guns in the area, four were Page’s, and two were the Napoleon section of the King William Artillery. Although one cannot be certain, they are most likely the ones to have been described by Doles.⁴⁴

With the advance of the Union division toward the small knoll that now bears his name, General Francis C. Barlow hoped to enfilade the flank of Doles’ brigade as well as to provide an artillery platform for a battery of Napoleon guns under the 19-year-old youngster Lt. Bayard Wilkeson. There had been tremendous Federal infantry pressure on Doles that afternoon, but the combination of skillful proactive maneuvers from his line officers, coupled with good artillery support from Carter’s gunners, had permitted the brigade’s survival.⁴⁵

Approaching the hillock, the men of Barlow’s first two brigades found themselves in a very hazardous position. As General Jubal A. Early’s infantry division advanced toward the town on the Heidlersburg road, the sixteen artillery pieces of Lieutenant Colonel Hilary P. Jones’ artillery battalion preceded them. The battalion was evenly divided, with eight rifles and eight smoothbores. That mixture would serve it well, given the targets it had to deal with that afternoon. The arrival of this artillery force at that time, under this particular commander, was one of those cases where things seemed to work together properly for the Confederates on this day.⁴⁶

Jones, a teacher who had attended the University of Virginia, had accepted a commission as a lieutenant in Page’s battery in August of 1861, with a promotion to captain in February of 1862. Further promotion had reached him in late May of 1862, whereupon he was given a majority and the command of a battalion. Following the battle of Chancellorsville, he had acted as the chief of artillery for the 2nd Corps. He was an experienced gunner.⁴⁷

At Gettysburg, Jones’ command consisted of several batteries, each with four guns. All were Virginia outfits, save the Louisiana Guard Artillery, led by Captain C.A. Green. It boasted two three-inch rifles and two Parrott guns. The Courtney Artillery, commanded by William A. Tanner, had three-inch rifles. The Staunton Artillery, Captain Asher W. Garber commanding, and the Charlottesville Artillery, commanded by Captain James McD. Carrington, both contained Napoleons. As Early deployed his force, three batteries were positioned in a field immediately in front of Colonel Isaac E. Avery’s brigade. Carrington’s battery, at General Early’s order, was not placed in line of battle but instead brought across Rock Creek to take position in front of Gettysburg. As things worked out, it would not be needed there.⁴⁸

As Jones' guns dropped trail and prepared to fire, two sections of Wilkeson's Battery G, 4th U. S. Regulars had just claimed the knoll in front of them. The Federal batteries of Dilger and Wheeler were still north of the town, and more Federal infantry were being moved in that direction. Jones' artillerists took every precaution to deny cover to the approaching Union skirmishers. Major Allen Brady, of the 17th Connecticut, led his men toward the Josiah Benner house, a short distance north of Rock Creek, on the west side of the Heidlersburg road. It was uncomfortably close to the cannoneers. "When near the house, the enemy opened upon us with shot, shell, grape and canister, which retarded our advance... The enemy, anticipating our movements, shelled the house, and set it on fire." With Jones' artillerists now in position, however, the Federal infantry was suddenly caught in the open. One of Ewell's staff officers commented, "I never saw guns better served than Jones' were on this occasion. Their fire was so rapid and concentrated that two batteries were forced off in rapid succession, though posted on ground rather higher than their own." A heavy fire was poured upon the exposed flank of the Federals massing against Doles' brigade. Theodore A. Dodge, of the 119th New York, recalled his experiences under fire in this position.⁴⁹

[A] rebel battery, which somehow had crept up on an eminence on our right, some half-mile distant, began to pepper us with grape and canister. This was very annoying, for although the fire of a battery is much less deadly at a distance than musketry close at hand, the noises are so much more appalling that men will get uneasy under a harmless shelling quicker than under a murderous fire of small arms.⁵⁰

Dodge wrote this, from the enviable distance of six years after the actual event. Another soldier, from the same brigade, wrote of feeling a little more exposed.

[A]bsolutely nothing remained to screen our line from the crossfire that now poured upon it from flank and front. The enemy's batteries swept the plain completely from two or three different directions, and their shells plunged through our solid squares, making terrible havoc.⁵¹

The artillery fire definitely produced its intended effect, in spite of the permanent disabling of one of the Napoleons (rendered unserviceable by being struck in the muzzle) and the temporary blocking of three rifle-pieces, most probably the 2.9-inch "10-pounder" Parrott rifles, once loaded with captured Federal 3.0-inch ammunition, intended for use in the true 3.0-inch bore "3-inch" Ordnance Rifles.

This incident again also underlined the failure of the Confederates to successfully organize their artillery by type, as batteries composed exclusively of 3.0-inch bore Ordnance Rifles would not have been crippled by this sort of flukish accident. Given the tiny measurement differences between bore and projectile diameters, it appears that the guns were warm from previous firings, and had expanded just enough to have the larger shots "wedge in the bores."⁵²

Carrington's battery was as yet unengaged. Now it was directed by General Early to move south across the Rock Creek bridge and take up a position to the west of the road, in the field, "in front of Gettysburg." According to Captain Carrington's account of the afternoon, General Early personally indicated to him "if anything happened to [the attacking Confederates] he wanted me to unlimber my battery immediately; I suppose, as a rallying point, in case such a thing became necessary." It did not. No fire was required from Early's reserve artillery battery this afternoon – just from Early's commander, General Ewell; and it was not forthcoming. Carrington discreetly noted that upon observing his corps commander in consultation with Early and Gordon, "his [Ewell's] manner indicated resistance to their appeal [to press forward with the attack]."⁵³

Another aide to General Ewell was Captain James Power Smith, a writer gifted with a vivid pen. In a well-crafted passage that captured the essence of the moment, Smith described the scene in the town as the advance stalled out.

The square was filled with Confederate soldiers, and with them were mingled many prisoners... It was a moment of most critical importance, more evidently critical to us now than it would seem to any one then. But even then, some of us who had served on Jackson's staff sat in a group in our saddles, and one said sadly, "Jackson is not here." Our Corps commander, General Ewell, as true a Confederate soldier as ever went into battle, was simply waiting for orders *when every moment of the time could not be balanced with gold* (emphasis added).⁵⁴

Until the moment that Lee had finally acquiesced to General Heth's insistent request that he be allowed to launch a coordinated attack to drive back the Union troops, he was determined to maintain something of a tactically defensive strategy. The importance of Lee's decision to go forward, to trade position for momentum, *prior to having all the pieces of his army in place*, therefore, is tremendous. It cannot be overstated. Lee anticipated, and no doubt expected, a maximum effort from his troops, including those in his artillery forces. The errors of those closest to him, specifically his chief of artillery and the army's upper echelon, resulted in the failure to sustain offensive operations throughout the mid and latter afternoon of July 1. The apparent confusion that ensued is worthy of closer examination, especially as it directly hampered the ability of the Confederate artillery service to perform to its highest potential during that time.⁵⁵

Evidence of this can be seen in the instructions that Lee gave to General Pendleton regarding seeking artillery positions. Looking to extend the Confederate presence below the Fairfield road and thus lengthen his line, Lee also expressed the desire to use the artillery to enfilade the "valley" between his forces and "the enemy's batteries next [to] the town." Pendleton was dispatched to seek out locations on the right, below the Fairfield road. To accomplish this, he had available two fresh battalions of artillery – those of Lieutenant Colonel John J. Garnett and Major William T. Poague, holding a combined total of thirty pieces (presumably then minus the six rifled guns of Garnett's battalion that had previously been detailed to reinforce Pegram's battalion). These units were fresh, nearby, and available that afternoon for use in any forward movement that might have been made. Added to those battalions already deployed (Pegram and McIntosh), the total artillery presence would have approached fifty-one effective guns. However, with the failure to obtain the infantry troops deemed necessary to support the position, the desired enfilade never developed.⁵⁶

As General Pendleton and his staff were busy selecting gun positions, he was approached by General Ramseur, concerned that any artillery firing would invite a heavy return fire upon his men, now occupying the town. Pendleton considered this, and directed Captain Victor Maurin, now in active command of a number of Garnett's guns, to post them and stand ready, with his horses under cover. They were, however, directed *not to fire*. Pendleton's instructions to his subordinates, however, initially understood to be preliminary pending the arrival of proper support troops, became permanent. Therefore, the guns did little. "Unless as part of a combined assault," Pendleton later wrote, "I at once saw that it would be worse than useless to fire there." How so? A portion of battle is bluff. At that moment, a strong bluff was "*fire placed on that hill, as much fire as possible.*" Was the chief of the Confederate Artillery having an ill-timed Shepherdstown flashback at this most critical of moments?

An observation by another artillerist is pertinent at this point. In his postwar writings, Colonel McIntosh noted the value of keeping up the pressure by shelling "the Cemetery Heights" from Seminary Ridge:

There is no reason why the Seminary Ridge should not then have been occupied with Confederate artillery to play upon the opposing heights. Had this been done, and the demoralized troops on Cemetery Heights been subjected to an artillery fire, it is certain that the effect must have been disastrous, and might have led to an abandonment of the position.

McIntosh characterized as “almost incomprehensible” the acceptance of the situation by those in command. In regards to Pendleton’s absorption of Ramseur’s fears about being fired on in the town, McIntosh had harsh words. He stated the “suggestion was a[s] untimely and ill-judged as its acceptance was weak and unfortunate.”⁵⁷

An old combat maxim states that ideally, a pursuer presents either “a wall of iron or a bridge of gold” to a withdrawing adversary. By failing to open upon Cemetery Hill from northern Seminary Ridge, with a line of batteries extending south of the Fairfield road, *irrespective of whether there were assaulting troops ready to advance or not*, the Confederates denied themselves a couple of significant advantages. Had they done so, pressure against the battered 1st and 11th corps would have continued, potentially driving many of them to the reverse side of the crest. Such a bombardment would have rendered much more problematic the “furious fire of artillery” from Cemetery Hill that General Early observed, and under which the Federals immediately organized for defense. General Lee, who had witnessed the flight of the enemy through the town, surely understood this; thus his earlier request to Pendleton for assistance.⁵⁸

After moving to the area of the Seminary grounds, the horses of Garnett’s battalion were apparently simply turned out to graze, and not kept in the traces for any rapid combat movements. According to Colonel Garnett, Lee ordered him to fire on Union forces that were moving toward the Emmitsburg road, with the intention of scattering them or observing their direction of movement. Restricted from firing by Pendleton, however, Garnett merely noted the direction of the withdrawing enemy units. Once in position, however, his battalion received fire from Union pieces on Cemetery Hill, highlighting the fact that his guns were still visible. More importantly, it hinted that the Federals might be turning their disorganized batteries around. Time was growing short.⁵⁹

Indeed, on the Federal side of the field, organization had *now* begun to replace disorganization. The most visible symbol of that transition was the arrival of Major General Winfield Scott Hancock, detailed to survey the situation for the still-absent army commander, George Gordon Meade. His observation and judgments, trusted by Meade during this critical period, helped the Union leadership to conclude that a further withdrawal was unnecessary. He had been in frequent communication with headquarters, giving General Meade appraisals of the developing situation. The communiqué sent at 5:25 P.M., however, is most revealing. Hancock observed,

When I arrived here an hour since, I found that our troops had given up the front of Gettysburg and the town. We have now taken up a position in the cemetery, and cannot well be taken. It is a position, however, *easily turned* (emphasis added).

It was this precise vulnerability that Lee had hoped to exploit with a pronounced enfilade fire. In its absence, during the lapse of an irretrievably critical hour, the Federals had felt the pressures relax and began to feel slightly more secure on the new high ground beneath their feet. They were given time to study this new position in detail. Although reassured that General Henry W. Slocum’s troops had begun to move toward the right of their line, Hancock’s comment’s regarding his left are less so:

But we have, as yet, *no troops on the left*, the Third Corps *not having yet reported*; but *I suppose* that it is marching up. *If so*, its flank march *will in a degree* protect our left flank (emphasis added).

It is worth noting that the tone in Hancock's note reveals much about the tentative nature of Union high command decision-making at 5:25 P.M. on July 1. Had there been an uninterrupted bombardment of the exposed Federal left, the ultimate decision to remain in an advanced position might have been quite different. The general continued:

The battlefield is *quiet* now. I think we will be all right until night... I think we can retire; if not, we can fight here, as the ground appears not unfavorable with good troops (emphasis added).⁶⁰

Hancock, then, was not averse to the eventuality of a withdrawal from the field if one was called for; but ultimately it proved unnecessary. It would be up to the Confederates to drive the Federals over the hills. Although they came closest on this day, they finally failed to do so. The diversion of Gordon's and Early's brigades away from the fight to pursue an unknown force to the east severely weakened the ability of Ewell's corps to continue the advance. That development, plus the failure of initiative on the part of the Confederate artillery chief to vigorously support the vision of his commander, doomed the failure of Lee's great gamble on July 1.

CONCLUSION

The Confederate artillery outfits that saw combat this day composed a fairly successful and well-led force, blessed by good timing, superior numbers and excellent positions. Even with that combination of advantages, however, the Southerners were finally unable to drive the Federals away from their rallying point on Cemetery Hill. Ultimately denied permission to utilize their momentum for a final attempt on July 1, Confederate artillerists played a pivotal role in bringing forth only partial victory that day.

Concealed within this failure, and even harder to see after the victorious but nearly sacrificial artillery duel against the flawed enemy position at the Peach Orchard on July 2, was a truly accurate assessment of the Southern "long arm." On July 3, with the enemy still stoutly occupying the hill and ridge, Confederate artillery proved definitively unable to effectively reduce Federal defensive positions the way that it had helped break up the less-entrenched and more hastily deployed forces on July 1.

The consequences of that failure proved unforgettable, as the ill-advised Confederate infantry charge disastrously proceeded. Had the powerful, albeit imperfect firepower of the Confederate artillery been allowed to play its part to the full in an unrelenting advance on Cemetery Hill on July 1, the "thunder of the guns" heard that day might have proven more successful than the better-remembered requiem heard two days hence.

Notes

¹ U.S. War Department, *The War of the Rebellion: The Official Records of the Union and Confederate Armies*, (Washington, D.C.: Government Printing Office, 1890 – 1901), Series I, 27(2): 637. [Hereafter cited as *OR*.]

² Jennings Cropper Wise, *The Long Arm of Lee* (City: Publishing House, 1959), 71; Josiah Gorgas, “Notes on the Ordnance Department of the Confederate Government,” in Rev. J. Wm. Jones, ed., *Southern Historical Society Papers*, (Richmond: Kraus Reprint Co., 1872 – 1931), 12: 68-69, 71-72 [Hereafter cited as *SHSP*; *OR* Series 4, 27(2): 194].

³ J.W. Mallet, “Work of the Ordnance Bureau,” *SHSP*, 37:8; Edward Porter Alexander, “The Great Charge and Artillery Fighting At Gettysburg,” in Robert U. Johnson and Clarence Buel, eds., *Battles and Leaders of the Civil War*, (New York: Castle Reprints, no date), 3:358.

⁴ *OR*, Series 1, 25(1): 803 - 804.

⁵ Ezra J. Warner, *Generals In Gray* (Baton Rouge: Louisiana State University Press, 1959), 234.

⁶ Jeffery D. Wert, “William Nelson Pendleton,” *Civil War Times Illustrated*, June 1974, pp. 14-15.

⁷ *OR*, Series 1, 11(2): 628.

⁸ Wert, 16; *OR*, Series 1, 19: 151.

⁹ *OR*, Series 1, 25(2): 614 – 615. On May 30, Pendleton wrote Lee a revealing commentary upon his failure to standardize the artillery, which is worth reading in its entirety (*OR*, Series 1, 25: 838). In part, he stated, “It has been deemed a less evil to let it remain than to create other difficulties by enforcing an equalization.” He did not wish to “produce regrets and dissatisfaction” by “taking away certain guns.”

¹⁰ *Ibid.*, 615 –617.

¹¹ Wise, 570; Charles B. Dew, *Ironmaker To The Confederacy: Joseph R. Anderson and the Tredegar Iron Works* (Wilmington: Broadfoot Publishing, 1987), 190.

¹² Betsy Fleet and John D. P. Fuller, eds., *Green Mount* (Charlottesville: University of Virginia, 1962), 262; J.C. Wise, “The Boy Gunners of Lee,” *SHSP*, 42: 156; Peter S. Carmichael, *Lee’s Young Artillerist: William R. J. Pegram* (Charlottesville: University of Virginia, 1995), 94.

¹³ Lt. Col. George R. Large, *Battle of Gettysburg: The Official History by the Gettysburg National Military Park Commission* (Shippensburg: Burd Street Press, 1999), 241; Peter S. Carmichael, *The Purcell, Crenshaw and Letcher Artillery* (Lynchburg: Publishing House, 1990), 113, 58, 1; Large, 242-243; Fleet and Fuller, 262; Wise, 369; Large, 244; Wise, 569; *OR*, Series 1, 27(2): 356; Large, 242-243.

¹⁴ Robert K. Krick, *Lee’s Colonel’s* (Dayton: Morningside House, 1979), 235.

¹⁵ Large, 238-241.

¹⁶ *OR*, Series 1, 27(2): 607.

¹⁷ *Ibid.*, 677; Member of the Crenshaw Battery, “From Gen. Lee’s Army,” *The Richmond Enquirer*, July 15, 1863, p. 2.

¹⁸ James L. Morrison, Jr., ed., *The Memoirs of Henry Heth* (Westport: Greenwood Press, 1974), 173; Lt. John L. Marye, “The First Gun at Gettysburg: With the Confederate Advance Guard,” *Civil War Regiments*, 1(1): 30; *OR*, Series 1, 27(2): 677.

¹⁹ *OR*, Series 1, 27(2): 677; Marcellus E. Jones journal entry for Wednesday, July 1, in “Marcellus E. Jones, Captain, 8th Illinois Cavalry”, n. d., in GNMP library, vertical file G-IL-8-CAV. The journal was written in 1897.

²⁰ Charles H. Andrews, *Condensed History of the Campaigns of the Third Regiment of Georgia Volunteers in the Confederate States Army* (unpublished manuscript), p.32, in GNMP library vertical file 7-GA3. Permission to quote from the original document is granted May 2005 by Beth Hall Stedman, formerly of Milledgeville, GA.

²¹ David Gregg McIntosh, “A Review of the Gettysburg Campaign By One Who Participated,” *SHSP*, 37: 109-110, 114; Wise, 616-617.

²² C.R. Fleet, “The Fredericksburg Artillery, Captain Edward S. Marye, In the Three Day’s Battle at Fredericksburg [sic], July, 1863,” *SHSP*, 32:240; *OR*, Series 1, 27(1): 1031.

²³ *OR*, Series 1, 27(2):677-678, 674; Large, 240.

²⁴ David and Audrey Ladd, eds., *The Bachelder Papers* (Dayton: Morningside Press, 1994), 1:305-307; Letter of James A. Hall; *OR*, Series 1, 27(1):359; Captains Wm. H. French, Wm. F. Barry, H. J. Hunt, *Instructions For Field Artillery* (New York: D. Van Nostrand, 1862), 2.

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- ²⁵Col. Charles S. Wainwright's Journal, unpublished paragraphs, in manuscript collection of Huntington Library, San Marino, California. Copy on file in GNMP library, vertical file 5 – Participant Accounts, Wainwright, Charles. Hereinafter cited as *Wainwright manuscript*.
- ²⁶ Wise, 881-882.
- ²⁷ Large, 257; Lawrence Laboda, *From Selma To Appomattox: The History of the Jeff Davis Artillery* (New York: Oxford University Press, 1994), 127; Large, 258.
- ²⁸ OR, Series 1, 27(2): 602, 552.
- ²⁹ *Pennsylvania at Gettysburg, Ceremonies at the Dedications of the Monuments* (Harrisburg: Wm. Stanley Ray, 1904), 2: 897; *Wainwright manuscript*.
- ³⁰ *Pennsylvania at Gettysburg*, 2: 897; OR, Series 1, 27(2): 602.
- ³¹ OR, Series 1 27(2): 552; OR, Series 1, 27(1): 329.
- ³² Richard E. Matthews, *The 149th Pennsylvania Volunteer Infantry Unit in the Civil War* (Jefferson: McFarland & Co., 1994), 82–83.
- ³³ OR, Series 1, 27(2): 552, 603.
- ³⁴ *Final Report For The Battlefield of Gettysburg* (Albany: J. B. Lyon & Co., 1902), “Oration of Christian Boehm,” 1: 375, translation by Ulli Baumann; Lt. Augustus Horstmann, 45th N.Y., GNMP library, vertical file; OR, Series 1, 27(2): 603; OR, Series 1, 27(1): 754; Alfred Lee, “Reminiscences of the Gettysburg Battle,” *Lippincott Magazine*, (New York, 1883), 6: 55; OR, Series 1, 27(2): 342. Although the individual battery casualty totals are not recorded, the collective totals for Carter’s battalion for the entire three days reveal only two more men killed and nine more men wounded than in Page’s battery’s action of July 1 alone.
- ³⁵ Harry Pfanz, *Gettysburg – The First Day* (Chapel Hill: University of North Carolina Press, 2001), 160, 168.
- ³⁶ Samuel Pickens, *The War-Time Diary of Samuel Pickens, Co. D, 5th Alabama Infantry 1862 to 1865* (Gettysburg: GNMP), entry for Wed., July 1, p. 34.
- ³⁷ Capt. Robert E. Park, “War Diary of Captain Robert Emory Park,” SHSP, 26: 17-18; OR, Series 1, 27(2): 592.
- ³⁸ OR, Series 1, 27(2): 603; OR, Series 1, 27(1): 754.
- ³⁹ Walter Clark, ed., *Histories of the Several Regiments and Battalions From North Carolina in the Great War, 1861 – ’65* (Wendell, NC: Broadfoot Publishing, 1982), 2:235; *Pennsylvania at Gettysburg*, 2:898.
- ⁴⁰ OR, Series 1, 27(2): 675.
- ⁴¹ *Pennsylvania at Gettysburg*, 898; OR, Series 1, 27(2): 678; Fleet, 241.
- ⁴² OR, Series 1, 27(2): 554, 587, 593, 603.
- ⁴³ Wise, 620; OR Series 1, 27(2): 2603.
- ⁴⁴ OR, Series 1, 27(2): 583.
- ⁴⁵ Pfanz, 230, 232.
- ⁴⁶ OR, Series 1, 27(2): 356.
- ⁴⁷ Robert K. Krick, *Lee’s Colonels; A Biographical Register of the Field Officers of the Army of Northern Virginia* (Dayton: Morningside Press, 1979), 196.
- ⁴⁸ OR, Series 1, 27(2): 458,495, 496; “*Artillery Organization, Army of Northern Virginia*,” in GNMP library, vertical file 7-ANV- ART; James Mc D. Carrington, “First Day on Left at Gettysburg,” SHSP, 37:330.
- ⁴⁹ OR, Series 1, 27(1): 717. Major Brady wrote of himself in the third person in this report. Account of Campbell Brown, staff-officer to General Ewell, found in the *Brown-Ewell* papers (Nashville: Tennessee State Library and Archives, Date), Box 2a, Folder 7 (?), entry 27/69. Copy in GNMP library vertical file, Participant Accounts, Brown, Campbell; OR, Series 1, 27(2): 495.
- ⁵⁰ Theodore A. Dodge, “Left Wounded on the Field,” *Putnam’s Magazine* (September, 1869), 321.
- ⁵¹ Alfred Lee, 56.
- ⁵² OR, Series 1, 27(2): 495.
- ⁵³ Ibid.; James McD. Carrington, 331.
- ⁵⁴ James Power Smith, “General Lee at Gettysburg,” *Papers of the Military History Society of Massachusetts*, 5: 390.
- ⁵⁵ Henry Heth, “Letter from Major-General Henry Heth, of A. P. Hill’s Corps, A.N.V.,” SHSP, 4:158
- ⁵⁶ OR, Series 1, 27(2): 347, 349.
- ⁵⁷ McIntosh, 118 – 119.

⁵⁸ Jubal A. Early, “A Review by General Early,” *SHSP*, 4: 255.

⁵⁹ Pfanz, 120,320; *OR*, Series 1, 27(2): 652, 349.

⁶⁰ *OR*, Series 1, 27(1): 366.