

“... For an hour and a half we had a grand Fourth of July performance...”

Robert E. Lee and the Cannonade of July 3

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The opening shot of the massive Confederate artillery bombardment on the afternoon of July 3, 1863, has traditionally been portrayed as the first act of the grand tragedy that announced General Robert E. Lee’s ill-starred assault on the center of the Union line. For many, that moment has long remained the critical second at which the inevitable slide toward irretrievable defeat began. In his novel *Intruder in the Dust*, Southern author William Faulkner reflected upon it this way:

For every Southern boy fourteen years old, not once but whenever he wants it, there is the instant when it's still not yet two o'clock on that July afternoon in 1863, the brigades are in position behind the rail fence, the guns are laid and ready in the woods ... and it's all in the balance, it hasn't happened yet, it hasn't even begun yet, it not only hasn't begun yet but there is still time for it not to begin against that position, [...] We all know that, we have come too far with too much at stake [...] *This time. Maybe this time...*¹

Of course, by the time these words were written in 1948, the crucial Confederate test of arms at Gettysburg had long since passed into history. Implicitly recalled in this failure was the large-scale artillery effort that, if successful, “would ... silence those [guns] of the enemy,” thereby “driv[ing] off the enemy [,] or greatly demoraliz[ing] him, so as to make our efforts pretty certain” prior to the advance of General James Longstreet’s Confederate infantry. Union Captain Charles Phillips, commanding the 5th Massachusetts Battery, positioned well south of the main target area of the assault, later characterized the supporting Southern bombardment as “... the biggest humbug of the season.”²

Indeed, his flippant description is often used to encapsulate the artillery effort as an unquestioned failure. But was it? In the words of General Lee, the Confederate artillery on July 3 was expected to perform a number of important, highly coordinated functions. In conjunction with Longstreet's batteries running north from the area of the Peach Orchard, many of A. P. Hill's guns, to the north, and a portion of Richard S. Ewell's batteries, to the north and east of Cemetery Hill, were expected "to open simultaneously, and the assaulting column to advance under cover of the *combined fire of the three* [emphasis added]." Secondly, Longstreet's and Hill's batteries were directed "... to be pushed forward as the infantry progressed, protect their flanks, and support their attacks closely."³

The importance of overall timing and coordination as a key element to the success of the day's operations may not be overstated here. Each portion of the Confederate artillery line was given its specifically designated tasks. The artillery's failure to successfully perform in the dual role of destroying the Federal artillery at the outset and providing an effective covering fire against the Union infantry is now held by many as *de facto* evidence of the utter inadequacy of the Confederate assault plan. Upon opening the action, however, Southern artillerists were committed to the task before them and endeavored to succeed as best they might with whatever resources were available. It would prove, though, a steep slope to ascend. As we shall see, the task demanded more preparation than was provided for.

The target location for the assault was General John Gibbon's divisional front of Major General Winfield Scott Hancock's 2nd Army Corps. Therefore, much of the Confederate firepower was to be directed against that section of the line in order to reduce the effectiveness of the Federal troops and artillery batteries posted there.

The *Field Artillery Manual* notes that the goals of artillery acting offensively were "to destroy or demolish material obstacles and means of cover, and thus prepare the way for success of other arms; to act upon the field of battle" and "to break an enemy's line or prevent him from forming; to crush his masses," and, perhaps most importantly, "to dismount his batteries." In the event that the Confederate guns positioned in the Peach Orchard could not effectively reach Gibbon's line, they were directed to "open on the enemy on the Rocky Hill," meaning on the Federal batteries posted on Little Round Top. The hoped-for objective of the cannonade was, as Colonel Edward P. Alexander, whose artillery battalion of Longstreet's corps would center the efforts of the bombardment, described, to "tear him [General Meade's defenses] limbless, as it were, if possible." Yet, given the technological changes that had enhanced the accuracy and effective range of fire from enemy troops armed with the rifle-musket, artillery was now most efficiently used to protect a position *against* infantry attack. As Colonel Charles S. Wainwright, commander of the artillery brigade of the 1st Corps, Army of the Potomac, later observed, "The artillery is in fact an arm of the defense rather than of offense; its glory is in coolness and obstinacy ..."⁴

Appearances could deceive, however; many factors therefore required careful consideration. Artillery utilized on the defensive in one location could permit the massing of attacking infantry elsewhere. One of the most prescient souls in the Union command structure, Army Chief of Artillery General Henry J. Hunt, was quick to discern the likely intentions of the offensive power in the line of guns he beheld before him. With the benefit of his professional training, and the gift of inerrant hindsight, he later recalled:

[O]ur whole front for two miles was covered by batteries already in line, or going into position. They stretched – apparently in one unbroken mass – from opposite the town to the Peach Orchard, which bounded the view to the left, the ridges of which were planted thick with cannon. What did it mean? It might possibly be to hold that line while its infantry was sent to aid Ewell, [...] but it most probably meant an assault on our center, to be proceeded by a cannonade in order to crush our batteries and shake our infantry. With such an object, the cannonade

would be long, and followed immediately by the assault, their whole army being held in readiness to follow up a success.⁵

However, a “successful” cannonade of the magnitude Hunt described required that a number of elements all work properly, and together. It was not enough to merely combine a large number of cannon against one target and blaze away for a time, and then “release the hounds,” in this case the infantry, hoping the physical and psychological damage done to the enemy line had dazed it to the approach of the assaulting force, who might then more easily penetrate its eviscerated remains. Ultimately, to be remembered as effective, these gunners had to be a portion of a coordinated and winning team, working together. It would prove a tall order for any force, and one that the Confederate artillery, on July 3, 1863, proved unable to meet. As it is traditionally by such standards that the total success or failure of an operation is measured, a review of all factors connected with the bombardment is appropriate here, for the failure of the *overall* Confederate assault obscures in memory the fact that the artillery branch did in fact accomplish one of its designated missions – the reduction and destruction of at least a portion of the Union artillery at the point of infantry contact.

This is a crucial point, one that is often overlooked. For following the initial shock that marked the start of the bombardment, the reaction of Union forces to the provocation of the cannonade would determine much –possibly even the ultimate outcome. Although possessing a mechanically superior artillery service, leadership, ability, organization, and experience still counted for much. Technical superiority, when in the hands of dubious leadership, does not always guarantee victory. In a measure, the opportunity to exploit potential chaos was a portion of the gamble of the Confederate plan.

On paper, the Confederate artillery arm was composed of some 272 pieces, all under the direction of the chief of artillery, Brigadier General William Nelson Pendleton. While Pendleton did indeed occupy the position (and would until the surrender), he had, by the time of the Gettysburg campaign, distinguished himself more effectively as an organizer than a combat leader. Standing fifth in his class at his 1830 graduation from the United States Military Academy, Pendleton spent only a few years in the service, teaching mathematics prior to entering the Episcopal priesthood. He had re-entered military service only upon the secession of Virginia, as the 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 was promoted to colonel and chief of artillery under General Joseph E. Johnston.⁶

Following Johnston’s wounding at Seven Pines on May 31, 1862, Pendleton was retained by General Lee as the army’s artillery chief. Appreciative of Pendleton’s skill with organizational matters, Lee belatedly came to discover that his ‘Parson’ was not well-fitted for tactical command. In spite of this failing, Lee, perhaps subconsciously gambling that he could improve his gifted subordinate, chose to retain his artillery chief for critical responsibilities. Memorable failures on notable occasions prior to Gettysburg, however, cost the Confederates dearly, and caused some officers to question Pendleton’s abilities. One such artillerist, the outspoken Lieutenant John Hampden Chamberlayne, of Richmond’s Crenshaw Battery, lamented in a letter home, “Brig. Gen. Pendleton is an absurd humbug; a fool and a coward.” Later, in a follow-up letter, he grew more colorful in his criticism, writing, “Pendleton is Lee’s weakness. [He] is like the elephant, we have him and we don’t know what to do with him, and it costs a devil of a sight to feed him.”⁷

Chamberlayne’s frustration had grown from observing his chief repeatedly fail under times of pressure during the campaigns of 1862. During the Seven Days campaign, at Malvern Hill, the Confederates faced a well-defended Federal battle line bristling with cannon. Pendleton, commanding the reserve artillery battalions of the army, found he 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.⁸

Twenty vitally needed batteries went unused on that day at Pendleton's direction. Many of the infantry losses were directly attributable to the lack of counterbattery fire that Pendleton's reserve could 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."⁹

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 roused 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. Despite his fear of having lost forty-four guns, in fact he had only lost four, thanks to the quick actions of a subordinate commander.

However, the implications of this incident, coupled with the memory of Malvern Hill, played hard on Pendleton's image as an effective leader. Doubts began to cement in the minds of many of his field officers regarding his fitness for combat command. Although Lee 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."¹⁰

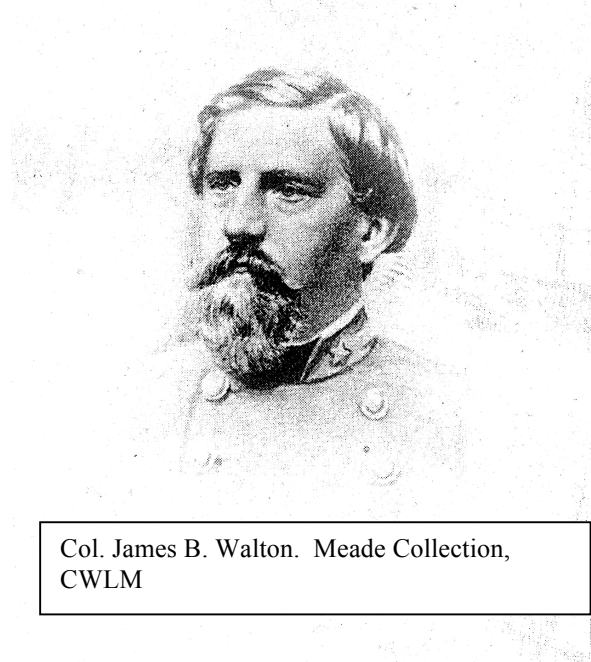
Following the army's return to Virginia at the conclusion of the Antietam campaign, Pendleton attempted to redeem himself as he oversaw the refitting and equipping of the depleted Confederate artillery. The following February, Pendleton further improved the efficiency of the Confederate field artillery service by introducing the battalion system, which placed it tactically ahead of its Federal adversary. However, the damage to his reputation was done, and Lee would not again willingly trust his artillery chief with independent command. The recognition, therefore,



Brig. Gen. William N. Pendleton. LC

of Pendleton as a glorified supernumerary to be bypassed, instead of a unifying leader to be relied upon during critical moments, speaks to the staff and personnel problems plaguing the Confederate leadership. In early March 1863, Lee himself attempted to crawl out from underneath the “Pendleton problem,” but was apparently unsuccessful in doing so. A suggestion to President Davis, reducing Pendleton to command the artillery of Stonewall Jackson’s corps, was received and passed over without comment.¹¹

Another example of personnel problems within the ranks of the Confederate gunners was represented in the person of Colonel James B. Walton. Born in New Jersey, Walton had joined the prestigious Washington Artillery of New Orleans in 1839 as adjutant. During the Mexican War, Walton led the 1st Louisiana Regiment and afterwards retained his connection with the Washington Artillery. On March 26, 1862, Walton was promoted to colonel and made head of the entire battalion. Following the post-Chancellorsville reorganization, Walton became the chief of artillery for Longstreet’s corps. However, by this time, he was an older man, somewhat prickly and provincial in outlook, and unaware of many advances in artillery technology and tactics. He had been preserved in rank, however, by the malignant cancer of the seniority system which protected him, to the detriment of the artillery service as a whole. This made it necessary to reach around him, as it were, to get specific tasks accomplished in a prompt and efficacious manner. General Longstreet, in an 1877 letter to Walton designed to assuage his pride when this issue came open for discussion, nevertheless documented the following points:



On the 3rd, Colonel Alexander, being an officer of unusual promptness, sagacity, and intelligence, and being more familiar with the ground to be occupied by the artillery, was directed to see that the batteries were posted to the best advantage. [...] Your duties were such as to take you away from headquarters, and often render it difficult to find you just at the right moment, particularly when the entire corps was not together [...]

*On the 3rd, Colonel Alexander’s special service, after seeing that the batteries were most advantageously posted, was to see that field artillery was ready to move with General Pickett’s assault, and to give me the benefit of his judgment as to the moment the effect of the artillery combat would justify the assault [italics in original].*¹²

Alexander’s “special service” is notable because these were duties that essentially should have been Walton’s.

Colonel Edward Porter Alexander, of Washington, Georgia, had graduated third in the class of 1857 at the United States Military Academy. Following the battle of First Manassas, Alexander had become chief of ordnance prior to moving into field command. A younger, more vigorous man than Walton, Alexander possessed the professional’s knowledge and skills for artillery work.

Throughout the year prior to the battle of Gettysburg, Robert E. Lee had endeavored to improve his artillery arm, acquiring more rifled guns both through battlefield capture and domestic production. Additionally, he had continually requested that more supplies be provided him, particularly in the form of artillery ammunition. While no general ever complained of having too many guns or shells to feed them, these shortages had been especially egregious for Confederate campaigners that year. Four days after the battle of Antietam, with four freshly captured twenty-pound Parrott rifles sitting idle in the rear for want of ammunition, Major Robert H. Chilton wrote to Major Briscoe Baldwin, supervising the Ordnance Department:

[General Lee] is particularly anxious that four 24-pounder [sic] Parrott guns captured at Harper's Ferry may be sent forward *if ammunition of a suitable character can be obtained*, as the enemy have been pushed back whenever our guns have reached them, and they rely greatly upon their long-range artillery, *in which they have greatly the advantage over us* [...] He has also advised the Department at Richmond that he wishes two-thirds of the ammunition forwarded to be long-range or for the rifled pieces [emphasis added].¹³

Production of ammunition and ready access to it had proved a critical concern for a number of engagements. On December 14, 1862, in the midst of the Battle of Fredericksburg, General Lee had been forced to send this uncomfortable telegram to the secretary of war:

I am informed by chief of ordnance of this army that the train now on the road contains *all* the artillery ammunition prepared in Richmond. I beg that every exertion be made to provide additional supplies, as there is every indication that it will be needed [emphasis added].¹⁴

Indeed it would. However, neither improved quality control nor increased output had been mastered in any substantial way before the battle of Gettysburg. Alexander recalled:

[In January 1863] Earnest requests were made of the Ordnance Department to substitute, for the Bormann fuse, the common paper-fuses, [...] on the strength of casualties occurring *from our own guns among the infantry in front* during the battle of Fredericksburg [emphasis added] [...] The ammunition already on hand, however, had to be used up, and its imperfections affected the fire even as late as Gettysburg.

The ammunition for the rifle-guns was likewise replete with difficulties: projectiles that failed to take the rifling in the guns and consequently “tumbled” inaccurately through the air, shells that exploded unpredictably in flight, or failed to explode at all.¹⁵

A portion of the ammunition/ordnance problem had been exacerbated by a difficult manufacturing season during the spring of 1863. Two disasters, both at major Richmond facilities, are in particular worthy of note as they directly affected the quality of the ordnance in use in the field at Gettysburg. On Friday, March 13, 1863, one of the prominent laboratories for the production of friction primers and artillery fuses caught fire and exploded, forcing the substitution of fuses from the arsenal in Charleston, South Carolina. This improvisation produced its own set of problems and rendered the ammunition even more unpredictable as the new fuses did not fit properly, often resulting in very short “burn times,” when they burned at all, or else failed outright, causing shells to burst inside the guns. The catastrophe in March was followed on May 15 by a major fire at the Crenshaw woolen mills, which then spread to the adjacent machine shops of the Tredegar Iron Works, where guns and many of the shells were manufactured. A

journalist for the Richmond *Examiner*, desperate in his attempt to downplay the damage done, perhaps revealed more than he intended in this report the following day:

A number of cannon in the boring and finishing shops burned are believed not to have been damaged to an extent to affect their efficacy or value. Two of the celebrated Brooke guns *had their bands a little loosened, but were yesterday adjudged good as ever* [emphasis added]. The new shot and shell that underwent the ordeal of the heat is not thought to be damaged in the least.¹⁶

Though they were thought not to be damaged in the least, it was indeed quite likely that much of the ammunition involved in the fire had in fact been dimensionally altered by exposure to the heat, as the reporter noted the loosened reinforcing bands on the Brooke rifles. *Any* dimensional alterations in the small-but-critical areas between fuse and shell would have permitted premature detonation of the rounds. As it was, shells were already cast of inferior material. On this point, Alexander himself had observed, “[T]he best iron was saved for gun metal.”¹⁷

These ordnance failures had an appreciable effect in the field. To endeavor to compensate somewhat for the unreliability of their explosive ordnance, Confederate battery commanders located in positions requiring them to fire over friendly troops were often thus directed to fire solid shot exclusively. Captain Willis J. Dance, commanding a battalion of guns near the seminary, recalled this order and the difficulties it imposed on July 3:

[W]hen the attack was made [...], th[e guns] all opened fire on the enemy’s batteries on our right, which were silenced for some time. In this position, it was impossible to say what damage was inflicted on the enemy, because for fear of injuring our infantry in front, we were ordered to fire only solid shot.¹⁸

This weakness dramatically undercut the potential of the bombardment in many sectors. Apart from the questionable quality of a fair portion of the ammunition produced, the dwindling quantity of it on hand, especially following two days of combat with no re-supply, became problematic. Alexander noted:

[T]he number of rounds which is carried with each piece in its limber and caisson is, including canister, about 130 to 150 – about enough for one hour and a half of rapid firing. I am *very sure* that our ordnance trains did not carry into Pennsylvania a reserve supply of more than 100 rounds per gun additional, and I don’t believe they had over 60 rounds to a gun.¹⁹

The combination of these two elements – less effective ordnance, in combination with reduced quantities of it – helped to assure that direct bombardment remained a less than effective tool for nullifying the Federal guns on the opposing ridgeline.

Given these difficulties, it would prove imperative with a large-scale bombardment to make every shot count for maximum effect. Over the previous eight months, great efforts had been expended, with some success, to streamline and improve the *number* of guns Lee’s cannoners possessed. These changes, while real enough and visible to all, held a dangerously limited significance, as they supported the illusion of more substantial improvements. On December 5, 1862, the army commander had written the secretary of war to request that “...a portion, if not all, of our 6-pounder smoothbores, and if necessary, some of our 12-pounder howitzers, be recast into

12-pounder Napoleons.” Lee opined that the best guns for field service were the ten-pounder Parrott, the three-inch Ordnance rifle, and the Napoleon. He further observed:

Batteries composed of such guns would simplify our ammunition, give us less metal to transport, and longer and more accurate range of fire [...] The contest between our 6-pounder smoothbores and the 12-pounder Napoleons is very unequal, and, in addition, is very discouraging to our artillerists.²⁰

Painfully aware of the flaws existing within the artillery, Lee adjusted his tactics to meet the exigencies of the situation, and chose his ground carefully when battle next appeared imminent. This allowed his artillerists to exploit positions so as to nullify the advantages of the Federal guns. Consequently, his batteries at Fredericksburg were not caught in unfavorable artillery bombardments against superior, long-range Union guns. There the power to select beneficial terrain had proven a key factor. Regarding the effective field of fire the Confederate cannoneers would have on his portion of that line, Colonel Alexander had commented, “[W]e cover that ground now so well that we will comb it as with a fine-tooth comb. A chicken could not live on that field when we open on it.” Tellingly, he also later observed, “I never conceived for a moment that Burnside would make his main attack right where we were the strongest.”²¹

Aware of the need to upgrade his artillery service, however, Lee continued to emphasize, in his restrained way, the need for longer-range guns into the spring of 1863. In a March 2 report to Jefferson Davis on the state of the artillery, the general closed his correspondence this way:

To replace the 6-pounder smoothbores with Napoleons, which I am trying to do, will require seventy Napoleons in addition to those we now have. I would be greatly obliged to Your Excellency if you could accelerate their manufacture.²²

The capture of forty-nine artillery pieces, some of them rifled guns, from Harper’s Ferry in September 1862 had improved the type and number of guns in the field. However, even coupled with the arrival of some forty-nine new domestically produced Napoleons cast in the spring of 1863 and delivered to Lee’s ordnance officers in time for the upcoming campaign season, organizational problems remained.²³

Ironically, these weaknesses were concealed to some degree by command and control difficulties which plagued the better-equipped and technologically superior Union artillery branch, which brought more than 400 guns to their defeat at Chancellorsville in May. There, mistakes within Confederate communication and leadership were overmatched by more notable failures of their Union counterparts.

Precisely due to this poor showing at Chancellorsville, the Federals shortly afterward instituted a number of reforms. The Army of the Potomac adopted an “artillery brigade” system, which gave each corps commander unrestricted access to four or five batteries, with the ability to request more from the artillery reserve, either directly, or through his corps’ chief of artillery. The massing of batteries for a dedicated tactical purpose could now be more easily achieved. Additionally, at least in the short term, the Army chief of artillery was expected to participate actively over the field, coordinating the role of the guns on all levels, and was no longer restricted to staff work.²⁴

In 1896, General Tully McCrea, who served as a lieutenant in Battery I, 1st U.S. Artillery at Gettysburg, recalled the organizational changes made to the Union artillery prior to that battle, writing, “The artillery of the Army of the Potomac *had at last received the same efficient organization* so long in use in the Army of Northern Virginia [emphasis added] ...”²⁵

It is to be noted here that this organization was not exactly the same as utilized by the Confederates, where control of batteries was organized on division-level battalions of roughly four batteries each. The Federal Army implemented an efficient general reserve force at nearly the same moment the Confederates abandoned theirs, partially from the necessity of restructuring from a two- to a three-corps army and partly from the realization that General Pendleton was probably incapable of doing much with it. In contrast, under the command authority recently restored to the indefatigable Henry Hunt by Joseph Hooker, the chief of artillery notably improved the structure of the Union force, serving to bring energy and cohesion to that army-level artillery command.²⁶

For the Confederates, the development of a proper army-level artillery command had been much less structured and perhaps reflected *why* adherence to formal organization was less rigidly adhered to. Consider the use of terms and command titles, and how these subtle differences played out differently on the battlefield. Col. Alexander recalled:

I am not even sure that the title “chief of artillery” of a corps was used. At first it was little more than a title given to the ranking battalion commander. *But in battle he occupied himself principally with his own battalion* [emphasis added]. In Longstreet’s corps the senior artillery officer was Colonel [James B.] Walton, who commanded the Washington Artillery from New Orleans – three small companies manning only 9 guns. His battalion and my 26 [guns] were called Longstreet’s reserve artillery, & I made my returns and received orders through Col. Walton.²⁷

Though somewhat provincial in nature, the reorganized battalion artillery command based on the division provided convenient and accessible firepower for most corps-level objectives, as it had on July 1, 1863. However, there were no standing channels to facilitate clear inter-corps communication, which proved a critical weakness on occasions when multi-corps artillery firepower was required.

The desire to organize batteries by gun *type*, for greater efficiency in the field, had been expressed by Pendleton in February of 1863 following the Fredericksburg fight. His ideal four-battery battalion would have consisted of two smooth-bore batteries and two rifled ones. This structure promised rapid mobility of like guns on the field at any needed point and eased logistical, ammunition, and resupply difficulties. As many Confederate batteries were mixed polyglots of rifles and smoothbores, redistribution of guns would need to take place to achieve this plan – *but it was never done*. On May 30, Pendleton commented to Lee regarding his failure to achieve standardization within the artillery:

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 in order to give rifles to [one command] they must be taken from some other. [...] I cannot recommend it, as the serious changes in armament 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 to me wise to excite.²⁸

Unfortunately for the Confederates, the Chancellorsville victory in some ways further weakened the drive to improve the arm. Sporting a few more guns led the reserve artillery to become “perverted from its true function,” and unappreciated for the specific role it was intended to play. Tactically mishandled, these units had been misallocated on the field and on occasion committed prematurely to battle.²⁹

The somewhat haphazard nature of artillery deployment posed a greater likelihood of artillery troops unexpectedly getting caught short in the face of the enemy. Indeed, General Pendleton himself detailed just such an example. In an extract concerning the fighting at Chancellorsville on May 1 he noted:

While [on Lee's Hill], the commanding general handed me a signal message from Port Royal, announcing two gunboats as there, and shelling the place. He wished a battery sent down immediately. This occasioned me some embarrassment, because the Washington Artillery had not yet arrived, and Lieutenant-Colonel Cutts' guns had to be relied upon for Marye's Hill.³⁰

Similar instances of Pendleton's artillery mismanagement appeared throughout the battle. Written after Gettysburg, through the warm glow of memory, Lee's report on the Chancellorsville battle, and its attendant artillery commentary, diplomatically highlighted in praiseworthy terms the legitimate achievements of his *gunners*, not necessarily their chief. Lee noted:

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, but every suitable position was taken with alacrity, and the operations of the infantry supported ... 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 the advance of our troops.³¹

In spite of its various failings, the Confederate artillery had again appeared triumphant. However, with the death of Lieutenant General Thomas "Stonewall" Jackson, a restructuring of the army from two to three corps was deemed necessary. The general artillery reserve was disbanded in favor of a corps reserve system, which designated two battalions of four-five batteries, usually sixteen to twenty guns total, in each corps to act as a "Corps Reserve," intended to provide commanders with immediate access to artillery reinforcements. Without good leadership from the overall chief of artillery or effective communications among corps commanders, however, this reorganization had the unfortunate effect of reducing the flexibility needed for massing firepower on the field when large, inter-corps activities were called for. In this regard, the final sentence of Lee's Chancellorsville report as it concerns his primary artillery chief reflects an interesting observation: "The *batteries* under General Pendleton [emphasis added] also acted with great gallantry." Just above that comment, Lee mentions seven other artillerists by name, "with the officers and men of their commands [...] as deserving especial commendation." This careful difference in phraseology, backed up by Lee's previous request to transfer Pendleton, and the ultimate dissolution of the general artillery reserve, indicates Lee's continuing awareness of the deficiencies inherent in his artillery chief, and perhaps a growing desire to restrict Pendleton more to staff duties than battlefield command.

For those willing to look at them in such a fashion, Fredericksburg and Chancellorsville suggested to the Southern optimist the possibility that given the proper sort of battle, a dedicated and veteran artillery force, even when ill-equipped, was capable on occasion of overcoming a better-armed, better-equipped force. Part of what had made the victory at Fredericksburg possible was the set-piece nature of the battlefield, not to mention the tremendous favors granted by Nature to the Confederates. Arguably, the Chancellorsville victory had further augmented the mistaken impression that the organization of the Confederate artillery compensated for the technical superiority of the Northern adversary. However, with its recent reorganization, the Federal artillery would not again appear as vulnerable.

Now, after two days of determined struggle at Gettysburg, Lee had lost the advantage of terrain. To compensate, he would need the most effective cooperation possible. Many cherished myths possessed by Southern gunners were to be tragically disproven during the “Great Cannonade.” Indeed, that contest highlighted in no uncertain terms the shortcomings of the Confederate “Long Arm,” when it attempted to support this most supremely important of attacks.

As the sun rose on the morning of July 3, noises of struggle were clearly discernable, roiling southward from the slopes of Culp’s Hill. Unfortunately for General Lee, it provided an audible, if unwelcome, confirmation that his “basic plan” of attack for the third day – a more coordinated version of the fight planned for July 2 – would *have* to be changed. Determined to drive elements of General Edward “Allegheny” Johnson’s division of General Richard S. Ewell’s corps from earthworks lost the previous day, Federal troops had struck first. It was time for Lee to recalculate.

Lee therefore speculated upon the potential strengths of his own position and how they might yet be focused to yet bring forth victory. While the Federals possessed the benefit of shorter interior lines, the Confederates might gain an advantage by being able to sweep Cemetery Ridge with destructive artillery crossfire, utilizing batteries planted along their longer exterior battle line. If this fire was delivered accurately and effectively, it could provide an assaulting infantry force the requisite cover needed to advance and force open the Union lines, which by then would be benumbed and reduced by the concentrated firepower that had played upon them. If correctly employed, Lee’s smaller artillery force of approximately 272 guns might bring to bear effectively some ninety guns per target mile against the Union lines. By virtue of the longer Confederate battle line, the Federals, in response, would see the efficacy of their larger artillery force reduced to only sixty-one guns per target mile. That is, the concentrated nature of the Federal defensive position, with its shorter lines, presented more targets per individual gun or battery front than the longer Confederate line did for Union artillerymen. While the precise number of guns eventually committed to the target area of the bombardment must forever remain something of a mystery, several estimates give an approximate sense of the firepower Lee hoped to have committed at somewhere around 170, possibly higher. Concentrating his artillery upon a smaller target area was an advantage Lee evidently hoped to exploit.³²

This lone advantage, however, inversely reflected upon the Confederacy’s single largest operational weakness in artillery operations – that of communication and coordination. Exterior lines, and the time it took to overcome them to distribute orders and important messages, would certainly prove a factor. Victory would require a much more coordinated effort, delivered from a presumably unified command. Lee therefore designated his 1st Corps commander, General James Longstreet – as the single overall infantry commander to direct the combined assault. Longstreet was opposed to the whole idea of the assault and also later protested his being assigned troops from different service branches, as well as corps.

In his memoir *From Manassas to Appomattox*, he wrote:

[Lee] knew that I did not believe success was possible [...] and he should have put an officer in charge who had more confidence in his plan. Two-thirds of the troops were of other commands, and there was no reason for putting the assaulting forces under my charge. [...] [H]e should have given the benefit of his presence and his assistance in getting the troops up, posting them, and *arranging the batteries* ...[emphasis added]³³

While there was perhaps an element of predictability to the tone of this argument, it does not nullify one salient point: The bulk of the forces under Longstreet’s command that day were not normally his. He had to make a temporary adaptation to fit the circumstance. The same was true of the artillery command this day, where, operationally, corps chiefs and battalion commanders were also called upon and expected to function almost as one unit. This required an almost

unheard-of level of communication between artillery commanders on disparate portions of the field. In the absence of a functioning supreme, inter-corps Confederate artillery chief of the Henry Hunt model, the demands of the moment should seemingly have begged the creation of one. It was unfortunate for the Confederates that this position did not exist when the need arose. Pendleton's nominal performance has been recounted above. The complete and utter failure to address the flaws in efficient communication and coordination between artillery corps commands prior to the cannonade was recounted by Alexander, who stated, "...[T]he officers of the different corps had no opportunity to examine each other's ground for chances to cooperate."³⁴

It was a theme Alexander later repeated in his *Military Memoirs*, when he observed: *Evidently* the cannonade was to be allowed to begin [...] I had a vague hope that with Ewell's and Hill's cooperation something *might* happen, though I knew little either of their positions, their opportunities, or their orders.³⁵

The supreme irony of this sentiment is that some of these lessons had apparently been foreseen early the previous year, and by one of the figures most closely associated with the artillery fiasco at Gettysburg. General Pendleton, in his report to Lee on the Seven Days engagements, where singular failures of coordination had ruined Confederate efforts at Malvern Hill, had observed:

I would commend to the consideration of the commanding general what seems to me to have been a serious error with regard to the use of artillery [...] – *too little was thrown into action at once; too much was left in the rear unused. We needed more guns taking part, alike for our own protection and for crippling the enemy* [emphasis added]. With a powerful array opposed to his own, we divide his attention, shake his nerves, make him shoot at random, and more readily drive him from the field worsted and alarmed.

What intrigues is the clarity of this statement, applicable to just the sort of operational problems that still cursed the Confederates, in spite of opportunities to improve and reorganize, a full year later. Pendleton's warning proved as eminently appropriate for the Gettysburg cannonade. He concludes:

A main cause of [our failure] in the present case was [...] a considerable degree of perplexity, which nothing but careful reconnaissance, by skillful officers, experienced in such service, could have obviated, but being obviated, the attack [would have] been more co-operative, concentrated, and effectual, the enemy's condition more crippled, and our success more triumphant, with less mourning in the land.³⁶

Indeed. If Pendleton, so often seen as *the* primary flaw in the organization of Lee's artillery service, could espy critical failings within that service, certainly others could have and should have as well.

By the morning of July 3, however, Lee was determined to move forward with the best plan that he could assemble that day, even over the concerns of Longstreet and any other detectable warnings he might have observed. For even if the risks were great, the potential rewards to be realized might be greater still. Lee therefore pressed ahead, trusting that his plan, faultily communicated to subordinates, would be carried out. Bolstering his belief in the correctness of his action, Lee had received on the June 10 a communiqué from Secretary of War James A. Seddon, reminding him, perhaps needlessly, of the official Confederate policy of "encountering

some risk to promote the grand results that may be obtained” in successful offensive operations. Lee had definitely encountered the *risk*; it was now time to see what “grand results” might be forthcoming.³⁷

To that end, on the morning of July 3 the general carefully took stock of the respective battle lines. According to Col. John J. Garnett, commander of the artillery battalion in Henry Heth’s division of Hill’s corps, “Gen. Lee had reconnoitered the Federal position from the college cupola, and had come to the conclusion that the left centre was the weakest part in the enemy’s lines.” He was thus determined to attempt to exploit it.³⁸

Having necessarily altered his intentions for the day’s battle, Lee then held a meeting “in front of and within cannon-range of Round Top” in the presence of the following officers: generals Longstreet, Hill, and Heth, in addition to Colonel Armistead L. Long and Major Charles S. Venable, of General Lee’s staff. It detailed, to a great degree, the interdependence of the different combat arms to achieve victory. Upon the presentation of the plan, apparently no one raised objections except General Longstreet, who voiced a concern for the safety of his right given the presence of Union guns on Round Top. Longstreet’s immediate concerns, if not his overall objections to the complete plan itself, were answered by Colonel Long, who optimistically claimed the guns on Round Top could be “suppressed” by Confederate return fire.³⁹

However, Longstreet’s question again exposed the issues of artillery fire coordination and overall command. Note that Lee’s designated chief of the artillery was not even in attendance at this meeting. In fact, Captain Thomas J. Goree of Longstreet’s staff 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 Genl. Lee, as Chief of Artillery, and the management of it given to the Corps Chiefs of Artillery* [emphasis added].⁴⁰

Operationally, the artillery of the three corps would function independent of one another, thus further reducing the arm’s potential effectiveness. Instead of one functional leader of his artillery force, Lee in actuality had *three*, each submissive to the directives of their respective corps commanders. Forewarned with documentable knowledge of previous failures by his titular artillery chief, Lee nonetheless relied upon the “Corps Chiefs of Artillery” to carry forth his vision of the artillery’s role in the attack, utilizing his traditional low-key, non-interventionist, command style. Alexander, acting commander of the 1st Corps artillery, is already well-known. Col. John T. Brown, a prominent Richmond attorney with no military background prior to joining the Richmond Howitzers in April of 1861, was chief of the 2nd Corps artillery. Col. Ruben L. Walker, a civil engineer and an 1845 graduate of the Virginia Military Academy, commanded the 3rd Corps guns.

At Chancellorsville, this construction of command had served Lee tolerably well; here, given the complexity and inferiority of the terrain, the disparate command structures, and the poor technology involved, it would not. Lee belatedly admitted as much, writing:

Our own [batteries] having nearly exhausted their ammunition in the *protracted* cannonade that had preceded the advance of the infantry, were unable to reply, or render the necessary support to the attacking party. Owing to this fact, *which was unknown to me when the assault took place*, the enemy was enabled to throw a strong force of infantry against our left [...] [emphasis added] ⁴¹

It is important to note the words Lee chose in his accounting. Lee, who endeavored to use words the way he used men – precisely, and for maximum effect – used the term “protracted” as a deliberate reference to the unanticipated length of the bombardment. On this point, Alexander, in his *Memoirs*, recorded:

At the end of 20 minutes no favorable development had occurred. More guns had been added to the Federal line than at the beginning, and its whole length, about two miles was blazing like a volcano. It seemed madness to order a column in the middle of a hot July day to undertake an advance of three-fourths of a mile over open ground against the center of that line.⁴²

The Confederate artillery’s inability to rapidly subdue the Federal guns and destabilize their infantry supports did not bode well for the overall assault. Some said that Lee had not been well-served by his “long arm.” Others said that he had asked too much of it. One practical artilleryist who voiced this opinion was David Gregg McIntosh, commander of a reserve battalion of artillery in Hill’s corps during the battle. In his *Review of the Gettysburg Campaign*, McIntosh expressed his opinion clearly:

The success of the scheme depended in the first place upon the ability of the Confederate batteries to overcome the fire of their opponents and carry confusion into the ranks of the infantry, and the initial effort as it turned out was a failure.

No such cannonade had been experienced before by either army, and [...] [t]he impression that any very serious effect had been produced upon the enemy’s line proved a delusion. [T]he distance was too great too to produce the results which they sanguinely hoped for. Previous experience should have taught them better. *It is not a little surprising that General Lee should have reckoned so largely upon the result* [emphasis added]. Both sides had been pretty well taught that sheltered lines of infantry cannot be shattered or dislodged when behind breastworks...

The soldier who has been taught by experience to hug tight to his breastworks, and knows that it is more dangerous to run than to lie still, comes to regard with stoical indifference the bursting missiles which are mostly above or behind him.⁴³

Attempting to take advantage of irregularities in the terrain, the bulk of the Confederate batteries was massed along the higher points of Seminary Ridge by battalions, the most concentrated grouping of which took in the gun line of the 1st Corps. Stretching in an irregular line some 1,300 yards long between the Peach Orchard and the northeast corner of Spangler Woods lay approximately seventy-five guns, a number of which had seen fairly intense action on July 2. Posted from south to north, the order of commanders with their battalions appeared thus: Major Mathias W. Henry, commanding the artillery of John Bell Hood’s division; Major Frank Huger, temporarily overseeing Alexander’s depleted reserve battalion while the latter supervised the entire 1st Corps artillery for the cannonade; Major Benjamin F. Eshleman, leading the Washington Artillery of New Orleans; and Major James Dearing, battalion commander for the guns of Pickett’s divisional artillery on the left, or northern, end of this line. Given the losses against the Peach Orchard salient the day before, Major Henry C. Cabell’s battalion of General Lafayette McLaws’s division had been temporarily broken up to utilize the surviving guns and crews within it. According to his report, six of his rifled pieces were sent forward, “several

hundred yards in front of the infantry, near a small brick (Sherfy) house, [...]front[ing] the road leading from Gettysburg to Emmitsburg.” The remaining guns – two ten-pound Parrotts, two Napoleons, and two twelve-pounder howitzers – were directed “to the left of the line, in front of Pickett’s division.” Similar fractious redistributions of guns had been made in other battalions as well. Of the four batteries in Henry’s battalion, two of them – Captain James Reilly’s North Carolina, armed with four rifled pieces and two Napoleons, and Captain William Bachman’s South Carolina, equipped with four Napoleons – were detailed to remain toward the extreme southern end of the line, “[I]n position on the Emmitsburg Pike just in rear of the position of the enemy [sic – night?] before.” These guns, with their longer ranges, could more effectively be used from that location, “when necessary to control the enemy’s fire from Little Round Top Mountain.” The armament of the two remaining batteries, Captain Alexander C. Latham’s North Carolina, and Captain Hugh R. Garden’s South Carolina, helped to determine their placement. Between them, these two units held a combined force of five Napoleons, two rifles, one twelve-pounder howitzer, and the last 1840s vintage six-pounder remaining in the Army of Northern Virginia. These guns were moved “... down the Pike to the peach orchard and there put [...] in position to fire on [...] Cemetery Hill.”⁴⁴

A similar reshuffling of the guns in other portions of the line had taken place as a part of the preparation for the bombardment. However, while this tactic was considered part and parcel of Confederate artillery operations, it frequently led to the underemployment of valuable assets. As one example, it was noted that Garnett’s artillery battalion of Heth’s division (which had already been partially broken up on July 1, when six of its rifled pieces, taken from two of his batteries, were sent to aid Major “Willie” Pegram), had again had its total complement of fifteen guns divided on July 2, with the nine rifled pieces of the battalion positioned just south of the Hagerstown road on the high ground opposing the west face of Cemetery Hill. From this location, these guns had actively participated in shelling of the hill during that afternoon and evening. On July 3, in anticipation of the cannonade, the rifled guns, under the command of Major Charles Richardson, were relocated yet again, this time to the position held by General Richard Anderson’s division. The remaining pieces, four Napoleons and two shorter-range bronze twelve-pounder howitzers, had initially been deemed ineffective at their primary gun line, given the distance from Seminary Ridge to Cemetery Hill. They were, however, euphemistically held “upon the field in readiness whenever they should be called upon,” which had turned out to be never. Indeed, it was recorded that these six pieces “bore no part” in the actions of either July 2 or 3.⁴⁵

As these adjustments were made only under the eyes of battery and battalion commanders, with scant liaison between corps artillerists, the requisite unity of command necessary in such a large-scale project was not achieved. It is worthwhile to note at this point an erroneous statement included by Longstreet in his official report: “All of the batteries of the First and Third Corps, and some of those of the Second, were put into the best positions for effective fire upon the point of attack and the hill occupied by the enemy’s left.” Obviously, they had not been. Later, in his memoirs, Longstreet would alter his recollections (and thus his responsibilities) even further, stating “[Colonel] Alexander was ordered to arrange the batteries of the First and Third Corps, those of the Second were *supposed* to be in position ...” But Alexander’s wartime correspondences and reports all underscore his role as the acting commander of the 1st Corps Artillery *exclusively* and nothing beyond that.⁴⁶

This failure of clarity in command is more easily understood if one presumes that Longstreet, left unhappily to his own devices regarding the implementation of the overall attack, perhaps followed the same basic behavioral pattern with his artillerists on the morning of July 3 as he had on mid-day of July 2. When planning the attack of July 3 with the question of overall artillery coordination as a key factor, it is likely that Longstreet, no doubt aware of Pendleton’s deficiencies, sought out Alexander to command the artillery, as he had bypassed Walton the day before. Whether he actually notified anyone of this intention, however, is another matter. The

failure to coordinate along clearly demarcated paths of communication would cost the Confederates dearly.

As Longstreet had bypassed his ineffectual corps artillery chief to better employ the services of Alexander, Lee bypassed his chief of artillery and allowed his corps artillery chiefs to manage the tactical employment of the army's long arm. The failure to have instilled and maintained, from early on, such essentials as gun standardization, along with integral unit cohesion and structure *as defined operating principles* had permitted the Confederate artillery to grow comfortable with a certain sense of spontaneity in its operations. The handicaps these failures imposed upon efficiency had long lain dormant; now they came to life to complicate the already difficult task of defeating a better-armed enemy occupying a strong position. The inability to utilize theoretically accessible firepower, multiplied throughout the battalions of Lee's army, had far-reaching implications. Alexander later observed that of the overall number of guns available within the 2nd Corps – twenty-five rifles and sixteen Napoleons, the corps' best class of smoothbores – remained unused. This included Captain William Nelson's battalion, save one battery (Captain John Milledge's Georgia) and much of Lieutenant Colonel Thomas Carter's, positioned north of Gettysburg. While the Confederate artillery still contained twenty-six shorter-range twelve-pounder howitzers in contrast with the rifled pieces and Napoleons, the failure to employ them was a tactical miscalculation. Fifteen of these pieces resided with the 3rd Corps, in the various batteries placed parallel to the Federal gun line on Cemetery Ridge and Hill. All told, in the 2nd and 3rd corps artillery during the bombardment, some eighty out of the eighty-four guns were thus either underemployed or held to positions near or at the limit of their posted effective range, and some fifty-six guns stood by totally idle. Alexander's own attempt to utilize nine of these short-range twelve-pounder howitzers, lent to him by Pendleton to be employed as forward fire supports for the advancing Confederate infantry during the assault, was later undercut by Pendleton, who removed four of the guns, and by Maj. Charles Richardson, their immediate commander on the ground, who at the intensity of the counter-bombardment upon A. P. Hill's position removed the remaining pieces to protect them. Reflecting the poor communication and coordination, in neither case did these officers inform Alexander that they were displacing the guns or where they were moving them to.⁴⁷

Before proceeding further, it is worthwhile to pause momentarily and reflect that while the flaws in the Confederate artillery strategy may by now appear numerous, if not fatal, to the reader, they did not appear to be so at the time to many of the Confederate commanders themselves. General Lee and Colonel Long were not the only officers possessed with the idea of success. As Colonel Alexander once let slip in his writings, "But the fact is that like all the rest of the army I believed that it would come out all right, because General Lee had planned it." For the vast majority of the participants, gifted insights on the failure of Lee's plan would only come with its defeat – a defeat that yet lay in the future.⁴⁸

Alexander, perhaps the officer most intimately knowledgeable with the flaws of Confederate ordnance in field situations, speculated in his postwar assessments of the bombardment that a greater benefit would have been achieved by massing firepower nearer the town and engaging in a thorough enfilade fire against the Union positions on Cemetery Hill. In his words:

[A] battery established where it can enfilade others need not worry about aim. It has only to fire in the right direction and the shot finds something to hurt wherever it falls. No troops, infantry or artillery, can long submit to an enfilade fire.

Later, he would forcefully state his belief that the failure not to employ all available guns in and near the town so as "to enfilade the 'shank of the fish-hook' and cross-fire with the guns from the west" had been "a phenomenal oversight."⁴⁹

Bowing to the inherent accuracy of historical hindsight, there is qualified evidence to suggest that the overall efficiency of the bombardment might have been improved had tactics of this type been adopted, especially given the ordnance handicaps plaguing the Confederate artillery service. Indeed, additional firepower from under-utilized batteries of Captain Willis J. Dance's 1st Virginia Artillery battalion posted in the vicinity of the Lutheran seminary, and Lieutenant Colonel Thomas Carter's battalion posted "on the high ridge on the right and left of the railroad cut" would have allowed the Confederates to make the most of the munitions at their command. Carter, temporarily supervising both battalions, observed that his guns were asked to accomplish two tasks on July 3:

Their fires [were] directed on the batteries planted on the Cemetery Hill. *This was done to divert the fire of the enemy's guns from Hill's and Pickett's troops across the valley, and also to divert their fire from three batteries of the First Virginia Artillery ... [emphasis added].* These three batteries had been ordered to fire [...] with a large number of guns on their right ...⁵⁰

The necessity of utilizing the same guns in dual roles – damaging the Federal batteries on Cemetery Hill *and* distracting the concentrated counter-battery fire aimed at Dance's guns – further underscored the failure to exploit every available position that offered a potential advantage. Dance himself reported that although "it was impossible to say what damage was inflicted on the enemy [...], the firing was believed to be accurate and effective." Again, however, technical flaws undercut the potential promised by position. Col. John T. Brown, chief of artillery for Ewell's corps, reported, "...had we been able to continue our fire with shell, the result would have been entirely satisfactory; but owing to the proximity of our infantry to the enemy, and the defective character of some of the shell, the batteries were compelled to use solid shot."⁵¹

Indeed, Major Thomas Osborn, commanding the Union guns posted in the Cemetery, recorded the power and of results of these Confederate guns:

Nothing which can be written will convey to the non-military man the slightest idea the fire concentrated on Cemetery Hill during the hour and a half it continued [...] An immense number were well directed and dropped down into our batteries, doing much damage. The officers, men and horses were killed and wounded rapidly. A caisson was blown up every few minutes, and every now and then an artillery carriage was struck and knocked to pieces.

Many of the Confederate guns opposite Osborn's, and some toward the southern end of Hill's corps, were forced to fire slightly "up-slope," toward the higher positions on Cemetery Hill. Given the longer ranges involved, this enhanced their chances of overshooting their intended targets, especially for the smoothbores. Osborn was but one correspondent who recorded the overshoots that became a portion of the "biggest humbug of the season" mythology of the cannonade. In his observations, he was slightly more cautious than some, noting:

As a rule, the fire of the enemy on all our [sic] front against Cemetery Hill was a little high. Their range or direction was perfect, but the elevation carried a very large proportion of their shells about twenty feet above our heads. The air just above us was full of shells and the fragments of shells. Indeed, if the enemy had been as successful in

securing our elevation as our range, there would not have been a live thing on the hill fifteen minutes after they opened fire.

This message was most emphatically driven home when, suddenly,

[S]everal guns, two batteries or more, opened on us from the ridge beyond East Cemetery Hill. The line of fire from these last batteries and the line of fire from the batteries on our west front were such as to leave the town between the two lines of fire. These last guns [...] [g]ot out our range at almost the first shot. Passing low over Colonel Wainwright's gun's they caught us square in the flank and with the elevation perfect. It was admirable shooting. They raked the whole line of batteries, killed and wounded the men and horses, and blew up the caissons rapidly. I saw one shell go through six horses standing broadside.⁵²

While Osborn's accounts do not depict the Union guns on Cemetery Hill in total crisis, they do offer tantalizing hints of the potential that lay before the Confederates, presuming, of course, the elusive "proper concert of action" had been employed. Likewise, the writings of Col. C. S. Wainwright, a seasoned artilleryman in his own right, also provide a window into the experience of being the subject of the sort of cross-fire later suggested by Alexander. Wainwright's account of the afternoon bombardment of July 2 indicates many of the opportunities the Confederates might have taken advantage of in the cannonade the following day. While there are some minor technical errors in his diary entry for that date, in the following excerpt he makes some points worthy of consideration:

Having plenty of room, [the rebel guns] were able to place their guns some thirty yards apart, *while ours were not over twelve*; and the two faces of our line meeting here, *the limbers stood absolutely crowded together*. Still we were able to shut them up, and drive them from the field in two hours. How it was they did not kill more horses I do not understand, *huddled together as we were, for their fire was the most accurate I have ever seen on the part of their artillery*, and the distance was just right, say 1,400 yards. Some of their guns took position more to our left, but were soon silenced, I being reinforced by a section by a section of twenty-pounder Parrotts which took position in the cemetery.

Wainwright, like Osborn, also recalled the fearsome power of enfilade artillery fire. In one instance during the shelling of July 2, he wrote of a single projectile that "struck in the centre 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. Fortunately it did not burst ..."⁵³

This is not to suggest that by merely relocating batteries into new positions and concentrating more of their available resources that an improved Confederate artillery would have resulted. As Wainwright noted above, the Federal guns "were able to shut them up." Given their flawed munitions and inferior number of guns, the Southern artillery remained second-rate in comparison to its Northern adversary. A cannonade focused upon Cemetery Hill *and the designated points of assault*, utilizing guns more closely positioned against them, would surely have resulted in Confederate casualties well surpassing those of the Peach Orchard affair the previous day. A larger-scale replication of those nearly point-blank tactics, however, would undoubtedly have been more effective upon the intended Federal targets, both physically and psychologically.

For flawed as it was, the pressure generated by the bombardment upon sections of the Union line, most notably the batteries of the 2nd Corps artillery brigade and the adjacent high ground of Zeigler's grove, was intense. In response to this, Gen. Winfield Scott Hancock, commanding the 2nd Corps, insisted that his batteries return fire on the Confederate guns. Thus, one of the first key elements of General Hunt's planned artillery defense – to conserve the Federal artillery for the Confederate infantry - was successfully undercut by the Confederate artillerists. General Hunt, writing in 1873, recalled:

So soon as the enemy opened his cannonade *which was a furious one* [emphasis added], Gen. Hancock as reported to me noticed that the batteries of his corps did not reply and directed Captain Hazard [2nd Corps artillery brigade commander] to open at once. Capt. Hazard informed him of my orders and begged him not to insist upon his own, but to this he would not listen and compelled a rapid reply to the enemy. He soon after as Major McGilvray (sic, *passim*) [First Volunteer Reserve artillery brigade commander], afterwards informed me galloped to his position, demanding with great emphasis why he did not fire, and ordered him to open fire at once, and rapidly. Major McGilvray, a cool and clear-headed officer, replied that he had received special instructions, and the time was not come. Gen. Hancock then demanded from whom he received his instructions and he replied "from the Chief of Artillery." Gen. Hancock then stated that Gen. Hunt had no idea of anything like this when he gave his orders, to which McGilvray replied that I had predicted just what was then occurring and that my orders were given to meet this very case. Gen. Hancock then said "*my troops cannot stand this shelling and will not stand it if it is not replied to*" [emphasis added] and ordered him to reply at once.⁵⁴

The effect of this intrusion by Hancock in response to the shelling was to admit, on a basic level, the terrifying power of being targeted by such a force. General Francis Walker, the general's chief of staff, later posed this question in defense of his superior:

Would the advantage so obtained [of not responding at all to the bombardment, so as to retain long-range ammunition for use in a cross-fire against presumed infantry attack] have compensated for the loss of *morale* which might have resulted from allowing [the Federals] to be scourged, at will, by the hostile artillery? Every soldier knows how trying and often demoralizing it is to artillery fire without reply.⁵⁵

Demoralization is the first outcome Lee sought to produce with his bombardment. It must be acknowledged that he achieved it, albeit within a limited area, and for a limited time. Granted, given the flaws in the bombardment plan a demoralizing effect *had been created within the ranks of the target area*. The failure to sustain and inability to exploit the pressure which the Confederate guns arguably brought to bear may rank as *the* key failure of the bombardment. This failure, which Lee himself references in his report, must be explained through the acknowledgement of flaws within the realm of *tactics* (proper utilization/placement of batteries) and the failure to adapt them, based upon widespread and erroneous presumptions of the effectiveness of Confederate artillery. Even overlooking the handicaps that poor-quality ammunition added to the mix, improper tactical employment proved to be an organizational failure of the cannonade.

This is most vividly displayed in the segregation of smoothbore sections from rifled sections in mixed batteries, and the effect of removing them from the main artillery line. Captain William W. Parker, commanding a battery of four rifles in Alexander's battalion, related his experiences as the bombardment line was being formed that to a degree was rendered more vulnerable to infantry and skirmishers by the separation from smoothbore guns. Note particularly the absence of unity that such disruptive interchangeability had bred:

July 3, took position at the orchard at 3 a.m. and opened upon some skirmishers (at 4 o'clock) who were attempting to get into the works in our front and drove them back. This battery [...] did a good deal of firing here that should have been done by Napoleons or Howitzers, and some of those guns were asked to fire but refused [...]

Later, describing the same action, Parker noted the vulnerability of rifled artillery against the "sharpshooters":

Had they concentrated upon us, we could not ... have withstood their fire. *Had our guns been Napoleons (or) howitzers* we might have successfully coped with the sharpshooters [emphasis added].⁵⁶

The above quotations reflect the failure of the Confederates to adopt a tactical, battalion-level organization that provided true battlefield flexibility. The Pendleton battalion model of January 1863, consisting of two batteries of rifles and two batteries of smoothbores per battalion, offering a clear-cut vision of more solid units and perhaps generating a higher *élan*, had gone untried. Valuable, documentable tactical benefits also went underappreciated; thus the right kind of gun was rendered unavailable, even when its particular type was best adapted to changing battlefield circumstances. No less an artillery authority than Union General Henry Hunt later indirectly admitted that anti-personnel canister rounds from twelve-pounder smoothbores flew approximately twice as far as those from rifles. The effects of such fire from well-drilled, cohesive four-gun units, as opposed to fragmented bits of batteries pulled hither and yon for special occasions, when accurately and promptly delivered, may well be imagined. Conversely, the creation and maintenance of separate rifled batteries throughout the army would have proved a much more efficient use of these guns. Under the well-established leadership of known and trusted officers, command and communication issues might well have been avoided, thus negating the blatant sort of participant refusal Parker observed. But this change was never made. To attempt to address these flaws, however, would have demanded a unity that was just out of reach for the artillerists in Lee's army. Failing to have achieved this cohesion, other scapegoats would have to be found.⁵⁷

Traditionally (and incorrectly), Pendleton has been the target of a great portion of the blame for the bombardment's failure. As may be discerned here however, the Southern artillery service struggled with many other serious weaknesses as well. A flawed structure of command, limitations of personnel and personality, and the ever-present ordnance woes formed an "iron triad" under which the lowly gunners labored. Pendleton was only a portion of their impediment to success. However, his reputation, combined with his position as chief of artillery and well known failures in tactical matters, made him an easy target. While ammunition shortages were not unknown to Confederate gunners, the over-cautious artillery chief did not help his cause or that of his country, when his actions on July 3 interfered with the batteries' access to ammunition in the midst of the bombardment. Pendleton's own report states:

Frequent shell endangering the First Corps ordnance train in the convenient locality I had assigned it, *it had been removed farther back.*

This necessitated longer time for refilling caissons. What was worse, the train itself was very limited, so that its stock was soon exhausted, *rendering requisite demand upon the reserve train, further off.* The whole amount was thus being rapidly reduced. With our means, to keep up supply at the rate required for such a conflict proved practically impossible.

This statement, delivered in distinctly Pendleton-esque fashion, bloodlessly obscured a major repercussion of the failure to properly support the batteries with ammunition. This had far-reaching consequences as the attenuated length of the bombardment depleted resources intended to supporting fire the attacking infantry. In his report, Pendleton explained, “There had to be, therefore, some relaxation of the protracted fire, and some lack of support for the deferred and attempted advance.”⁵⁸

Note the genteel use of the term “deferred.” The delay proved to have major consequences. An unsigned extract from the Fauquier’s Artillery, one of the batteries in Major James Dearing’s command, verified the difficulties of obtaining ordnance and hinted at the disruption that resulted:

Note: One-half hour before Pickett’s division was put in motion, almost all the artillery ammunition was exhausted along the line, and none could be obtained from the ordnance train in time to be of service.⁵⁹

Captain Joseph Graham, commanding the Charlotte (N.C.) Artillery of Major William T. Poague’s battalion in Major General William D. Pender’s division of Hill’s corps, was more direct. In a letter to his father on July 30, Graham stated that “*some one made a botch*” of Lee’s plans at the upper levels of command that cost the Confederates whatever effectiveness the bombardment had initially produced. Captain Graham, the well-educated son of former North Carolina governor William A. Graham, observed:

The Infantry were to have advanced through the dense smoke immediately upon the cessation of our fire, but by some mismanagement, there was quite a delay, until everything became settled, and the Enemy had time to prepare for the charge.⁶⁰

The oft-repeated account between General Longstreet and Colonel Alexander as to possibly halting Pickett’s columns just as the order to charge was given centers on the question of replenishing ammunition. Alexander concluded that because it would consume so much time that the Confederates would lose whatever hard-won “shock value” had been generated. He correctly noted, “It would take an hour to distribute [fresh ammunition], and meanwhile the enemy would improve the time.” Colonel Eppa Hunton, commanding the 8th Virginia Infantry regiment of Brigadier General Richard B. Garnett’s brigade, witnessed another, less well-known point where Pendleton’s “relaxation” was particularly evident – among the guns of Major Dearing’s battalion. When asked to recall the nature of the artillery support he received during the attack, Hunton stated:

Just after the order to charge was given, Major Dearing passed with his caissons to the rear at full speed. As he passed me he said, “For God’s sake, wait til I get some ammunition and I will drive every Yankee from the heights. [...] *Its efficiency was destroyed by want of ammunition* [emphasis added].⁶¹

Captain Graham seems to have shared that assessment:

The most of our Artillery Ammunition then expended, we could not do much toward driving off their batteries. However, our men advanced steadily, but I fear with *too feeble determination* [emphasis in original], some, up to the work, some not so far, and so on. [...] The lines moved right through my Battery, and I feared then I could see a want of resolution in our men. And I heard many say “that is worse than Malvern Hill,” and “I don’t hardly think that position can be carried,” etc., etc., enough to make me apprehensive about the results.⁶²

Unfortunately, these last-minute recognitions of deeper underlying problems within the Confederate artillery service did nothing to forestall the overall assault, as much as Longstreet might have wished they would. Enough damage, both real and presumed, had been inflicted upon the Federal artillery line to suggest going forward with the attack. But the inferiority of Confederate arms and organization was brought out clearly this day. Alexander, in a letter to Gettysburg historian John Bachelder, described in May of 1876 a succinct *mea culpa* of his own, one that arguably reflected the portion of each Confederate artillerist in a position of command:

But I had done my duty & was not willing to take any responsibility that did not belong to me, so I listened in silence [to Longstreet] & in a few minutes Pickett’s division swept over us and was out on the plain & *the thing was done* [emphasis added].⁶³

Indeed it was, but not in the manner its creator had foreseen. General Lee’s description of the role *intended* for his artillery had not been one of a quiet witness to an infantry disaster, but an active participant, “[moving] forward as the infantry advanced, protect[ing] their flanks, and support[ing] their attacks closely.” For a variety of reasons, the artillery had been unable to do this, although the bombardment, for a time, seemed to offer the promise of a sufficiently damaged Federal line to promote the illusion of success.

Without the forward support of the Confederate artillery, however, the illusion was undeniably brief. Lee reported that while Confederate infantry moved forward, enemy “batteries reopened as soon as they appeared.” With the inability to mount a credible threat from the drained and played-out artillery, the results were predictable. Lee recorded, perhaps as equivocation, perhaps as confession, that he was “unaware” that his artillery was “unable to reply, or render the necessary support to the attacking party.” His artillery had not produced the decisive results he had hoped it might.⁶⁴

In envisioning the role his artillery was to play in a unified assault against the Federal center on July 3, Robert E. Lee again underscored his boldness as a commander. However, as we have seen, the risks he undertook in pursuit of victory were predicated on an assortment of factors which were not all grounded in accurate assessments of reality. Condemning combinations of failures within organizational, ordnance, and personnel branches, multiplied by difficult terrain over which to initiate and sustain unified action, helped reduce Lee’s vision of the artillery’s role to just that – a belief in what it could have accomplished had the plan worked. For the Confederates, surely, the words of John Greenleaf Whittier, the old Quaker poet, rang true with the failure of the Grand Cannonade of July 3 and what it portended for Southern hopes – “For of all sad words of tongue or pen / The saddest are these: *It might have been!*”⁶⁵

Notes

- ¹ William Faulkner, *Intruder in the Dust* (New York: Random House, 1948), 194.
- ² U.S. War Department, *The War of the Rebellion: The Official Records of the Union and Confederate Armies*, 128 vols. (Washington, D. C.: Government Printing Office, 1890-1901), Series 1, 27(2):320 [Hereafter cited as *OR*]; Gary Gallagher, ed., *Fighting For the Confederacy: The Personal Recollections of General Edward Porter Alexander* (Chapel Hill: University of North Carolina Press, 1989), 254; Luther E. Cowles, ed., *History of the 5th Mass. Battery* (n.p., 1902), 652.
- ³ *OR*, Series 1, 27(2):320.
- ⁴ William H. French, William F. Barry, Henry J. Hunt, *Instructions For Field Artillery* (New York: D. Van Nostrand, 1864), 2; Jennings Cropper Wise, *The Long Arm of Lee: The History of the Artillery of the Army of Northern Virginia* (New York: Oxford University Press, 1959), 677; Gallagher, 245-246; Allan Nevins, ed., *A Diary of Battle: The Personal Journals of Colonel Charles S. Wainwright 1861-1865* (New York: Da Capo Press, 1998), 472.
- ⁵ Henry J. Hunt, "The Third Day at Gettysburg," in *Battles and Leaders of the Civil War*, Robert U. Johnson and Clarence C. Buel, eds. 4 vols. (Secaucus: Castle Books, n. d.), 3:371-372.
- ⁶ Ezra Warner, *Generals in Gray, Lives of the Confederate Commanders* (Baton Rouge: Louisiana State University Press, 1959), 234-235.
- ⁷ Jeffery D. Wert, "William Nelson Pendleton," *Civil War Times Illustrated* (June 1974), 16.
- ⁸ *Ibid.*, 14-15.
- ⁹ *OR*, Series 1, 11(2):628.
- ¹⁰ Wert, 16; *OR*, Series 1, 19(1):151.
- ¹¹ Warner, 234; Douglas Southall Freeman, ed., *Lee's Dispatches: Unpublished Letters of General Robert E. Lee, C.S.A.* (New York: G. Putnam's Sons, 1915), 79. On p. 242 of the same volume can be found as direct a sentiment as the careful Lee ever penned regarding his artillery chief. When asked to endorse Pendleton's possible fitness as a replacement for the fallen Gen. Leonidas Polk, Lee declined, stating, "I do not mean to say by that he is not competent, but from what I have seen of him, I do not know that he is ..."
- ¹² Robert K. Krick, *Lee's Colonels: A Biographical Register of the Field Officers of the Army of Northern Virginia* (Dayton, Ohio: Morningside Press, 1992), 386; James Longstreet, "Letter From General Longstreet," in *Southern Historical Society Papers*, ed. Rev. J. William Jones (Richmond: Rev. J. Wm. Jones, 1872-1931), 5:52.
- ¹³ *OR*, Series 1, 19(2):613.
- ¹⁴ *OR*, Series 1, 21(1):546.
- ¹⁵ E. P. Alexander, "Confederate Artillery Service," in Jones, 11:105,106-107.
- ¹⁶ Joseph T. Glatthaar, *General Lee's Army: From Victory to Collapse* (New York: Free Press, 2008), 265-266; *Richmond Examiner*, May 16, 1863, n.p., http://www.mdgorman.com/Written_Accounts/Examiner/1863/richmond_examiner_5161863b.htm (11December 2009).
- ¹⁷ Alexander, "Confederate Artillery Service," 107.
- ¹⁸ *OR*, Series 1, 27 (2):604.
- ¹⁹ Alexander, "Causes of Lee's Defeat at Gettysburg," in Jones, 4:103.
- ²⁰ *OR*, Series 1, 21(1):1046-1047.
- ²¹ James Longstreet, "The Battle of Fredericksburg," in Johnson and Buel, 3:79; Gallagher, 168.
- ²² *OR*, Series 1, 25(2):651.
- ²³ Wise, 291; Charles B. Dew, *Ironmaker to the Confederacy: Joseph R. Anderson and the Tredegar Iron Works* (Wilmington: Broadfoot Publishing, 1987), 190.
- ²⁴ *OR*, Series 1, 25(2):471. This would not be clear to all, however. Disputes between infantry and artillery commanders, in later conflicts, over "who commands the guns" would continue long after the Hunt/Hancock dispute had passed from memory.
- ²⁵ Catherine S. Crary, ed., *Dear Belle: Letters from a Cadet and Officer to His Sweetheart, 1858-1865* (Middleton: Wesleyan University Press, 1965), 211-212.
- ²⁶ *OR*, Series 1, 25(2):471.
- ²⁷ Gallagher, 168.
- ²⁸ *OR*, Series 1, 25(2):838.
- ²⁹ Wise, 550-1; see also p. 467 for further commentary on this point.
- ³⁰ *OR*, Series 1, 25(1):810.

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- ³¹ Ibid., 803-804.
- ³² Phil Cole, *Civil War Artillery at Gettysburg* (New York: Da Capo Press, 2002), 215; Edwin B. Coddington, *The Gettysburg Campaign: A Study in Command* (Dayton: Morningside Press, 1984), 486.
- ³³ James Longstreet, *From Manassas To Appomattox* (Bloomington: Indiana University Press, 1960), 388.
- ³⁴ E. P. Alexander, "The Great Charge and Artillery Fighting at Gettysburg," in Johnson and Buel, 3:363.
- ³⁵ E. P. Alexander, *Military Memoirs of a Confederate: A Critical Narrative* (Dayton: Morningside Press, 2005), 421.
- ³⁶ *OR*, Series 1, 11(2):537.
- ³⁷ Ibid., 27(3):882.
- ³⁸ John J. Garnett, *Gettysburg: A Complete Historical Narrative of the Battle of Gettysburg, and the Campaign Preceding It* (New York: J. M. Hill, 1888), 39. While Garnett states that Lee used the "college cupola" for his observation, circumstances strongly suggest that he in fact used the cupola of the Lutheran Seminary.
- ³⁹ Armistead L. Long, *Memoirs of Robert E. Lee: His Military and Personal History* (Secaucus: Blue & Grey Press, 1983), 288.
- ⁴⁰ Thomas W. Cutrer, ed., *Longstreet's Aide: The Civil War Letters of Major Thomas J. Goree* (Charlottesville: University Press of Virginia, 1995), 159. While some of Goree's enthusiasm on this issue may have been tinged with post-war Longstreet politics, several of his points echo observations made by other Confederate officers, notably Colonel Alexander and Major McIntosh.
- ⁴¹ *OR*, Series 1, 27(2):321.
- ⁴² Alexander, *Military Memoirs*, 423.
- ⁴³ David G. McIntosh, "A Review of the Gettysburg Campaign," in Jones, 37:135-137.
- ⁴⁴ Wise, 664; *OR*, Series 1, 27(2):375; Janet B. Hewett, Noah A. Trudeau, Bryce A. Suderow, eds., *Supplement to the Official Records of the Union and Confederate Armies* (Wilmington,: Broadfoot Publishing, 1995), Series 5, 5: 348-349.
- ⁴⁵ *OR*, Series 1, 27(2):652-653.
- ⁴⁶ Ibid., 359; Longstreet, *From Manassas to Appomattox*, 387. See also *OR*, Series 1, 27 (2):429-431, and Hewett et al., Series 5, 5:358-359. At one point in his reports, Alexander, referring to the nine guns supposed to be lent him by Pendleton for the charge, states, "...[B]esides the seventy-five guns in battery, I had reserved only nine, under Major Charles Richardson, who had been ordered to me with them from the Third Corps." It appears evident that Alexander himself considered the limit of his command to be only the guns of the 1st Corps.
- ⁴⁷ Alexander, *Military Memoirs*, 419-420.
- ⁴⁸ Gallagher, 254.
- ⁴⁹ Alexander, *Military Memoirs*, 419.
- ⁵⁰ *OR*, Series 1, 27(2):603.
- ⁵¹ Ibid., 604, 456.
- ⁵² Herb S. Crumb, ed., *The Eleventh Corps Artillery at Gettysburg: The Papers of Thomas Ward Osborn* (Hamilton, N.Y.: Edmonston Publishing Co., 1991), 72-73, 36.
- ⁵³ Nevins, 243.
- ⁵⁴ David L. Ladd, Audrey J. Ladd, Richard A. Sauers, eds., *The Bachelder Papers* (Dayton, Ohio: Morningside Press, 1994), 1:432.
- ⁵⁵ Buel and Johnson, 3:386.
- ⁵⁶ Hewett, et al., Series 5, 5: 367-368.
- ⁵⁷ Ladd, et al., 2:814.
- ⁵⁸ *OR*, Series 1, 27(2):352. It is interesting to observe how Pendleton's reports acquire a passive voice at questionable moments.
- ⁵⁹ Hewett, et al., Series 5, 5:341.
- ⁶⁰ Joseph R. Graham, "An Awful Affair," in *Civil War Times Illustrated*, ed. Max R. Williams (April 1984), 48.
- ⁶¹ Alexander, *Military Memoirs*, 424; Hewett, et al., Series 5, 5:309-310.
- ⁶² Graham, 48.
- ⁶³ Ladd, et al., 1:490.
- ⁶⁴ *OR*, Series 1, 27(2):320, 321.
- ⁶⁵ Richard Wilbur, ed., *Whittier* (New York: Dell Publishing Co., 1960), 38.