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The Reliability of the Physical Evidence at the Battle of the Little Big Horn

Can the Physical Evidence Found Provide an Accurate Picture?

by Albert Winkler

Often, artifacts, most importantly bullets and spent shell casings, found at the location of the Battle of the Little Big Horn have been used independently of other sources to make or refute certain theories on the encounter. Books and articles based on these finds have advanced many arguments on troop dispositions, types of weapons employed, army movements, the locations of the fighting, and the duration and intensity of combat. Yet many of these studies have not adequately addressed the question of the validity of this physical evidence. The purpose of the article is to summarize earlier arguments on the accuracy of using bullets and spent shell casings in research and to present a number of examples of how the use of these items in research may be flawed.

Douglas D. Scott, an eminent archaeologist on the battle, has stated that certain artifacts found on the battlefield aid in an understanding of the fight:

*Bullets and cartridge cases were most important in helping us see how the battle was fought.*

This assertion is only valid if these artifacts are unquestionably reliable. But there are many reasons to believe that they maybe untrustworthy. This article will show that the exact opposite. The evidence presented by the bullets and spent shell casings is highly questionable and may be of limited use in helping researchers understand the battle better.

The relics found on the battlefield must clearly relate to the encounter, and the location or context of where the artifacts were found must be carefully noted. These items must also represent a significant percentage of the munitions expended in the battle, and these artifacts must be representative of the items that were removed from the area. Therefore, the battlefield should be considered like a crime scene, and all the original evidence should remain as undisturbed as possible. Yet the area has not been preserved, and therefore the physical evidence is of questionable reliability.

Ammunition Expended

On July 11, 1876, only 15 days after the battle, Major Reno reported on the number of rounds used by the army, “Amt. Ammunition exp’d. [Amount Ammunition Expended] — Carbine, 38,030 rounds: [Amt. Ammunition exp’d.] — Pistol, 2,954 [rounds].” The total amount of carbine and pistol ammunition expended was therefore 40,984. Each round once fired left two artifacts, the bullet and the spent shell casing. This meant that a total of 81,968 such objects should have been on the battlefield from his command alone, and the Major’s numbers do not include the ammunition expended by Custer’s column because Reno had no way of knowing how many rounds they fired. The actual total could have been much higher. However, ar-
chaological investigations in the 1980s found only 1,108 spent casings and bullets located at various areas of the battle.3

Each of the roughly 600 troopers in Custer’s command carried 100 rounds of carbine and 24 rounds of pistol ammunition on his person or in his saddle bags. They were wielding the Springfield Model 1873 Carbine which was capable of a high rate of fire, and it could have left many artifacts very rapidly. When the U.S. Board of Ordnance decided on a new standard army weapon in 1873, they tested its optimal rate of fire, and the Springfield Carbine had impressive results. A government report stated that:

A practiced person can fire this arm from 12 to 13 times per minute, loading from the cartridge box. It has been fired at the rate of 23 times per minute from a cartridge box, by an experienced person.4

These tests were no doubt conducted under optimal conditions, and actual expenditure in combat would have clearly been less, but the weapons could have been fired rapidly.

The first group of cavalrymen to combat their adversaries were the 130 men in Maj. Reno’s battalion which crossed the Little Big Horn River and engaged in the valley fight. Lt. George Wallace, Interpreter Frederick Girard, Capt. Myles Moylan, Lt. Luther Hare, and Sgt. Ferdinand Culbertson stated that each soldier shot roughly 30 to 50 rounds of ammunition in the valley fight. This meant that the 130 men engaged would have shot between 3,900 and 6,500 rounds of ammunition, leaving between 7,800 and 13,000 bullets and spent casings on the field of battle before Reno’s men retreated to the top of Reno hill. Unfortunately, very few artifacts have been found in the location of the valley fight.

According to Edgerly, Godfrey, and Capt. Thomas M. McDougall, the fighting and the rate of fire on Reno Hill were very intense at times, and the troopers expended much ammunition. Using Reno’s statement that his command had fired 40,984 rounds in the entire battle, and subtracting those used by his battalion in the valley fight, then the action on Reno Hill, used from 34,484 to 37,084 rounds of ammunition. That left from 68,968 to 74,168 bullets and shell casings on the field, but modern researchers found only 305 spent shell casings and 530 bullets for a total of 835 such objects in the area.5

The amount of ammunition Custer’s column expended is difficult to assess, but some observations may be made on the intensity and duration of the fight from the available evidence, including the din of battle. Many of the men on Reno Hill heard Custer’s men when they were engaged in combat. The accounts by Girard, Lt. Charles Varnum, Hare, Lt. Charles DeRudio, Pvt. Edward Davern, Lt. Winfield Edgerly, Packer Benjamin Churchill, Capt. Thomas McDougall, Scout George Herendeen, Sgt. Ferdinand Culbertson, and Capt. Frederick Benteen gave several estimates on the duration of battle. Three of them state it lasted from 1 ½ to 2 hours. One said it lasted one hour, while Benteen testified the sound lasted from 15 minutes to a half hour. The majority of the evidence from the sound of volleys indicate that Custer’s men fought for about one and a half hours, and they could have fired many rounds in that time. Kill Eagle, Curley, and Chief Gall said the 210 troopers with Custer expended much ammunition, while Red Horse and Left Hand said they did not.

Custer’s battalion brought about 26,000 rounds of carbine and pistol ammunition to the battle, and I suggest that 25 rounds is a reasonable estimate of the average number of cartridges fired by each trooper for a total of 5,000 rounds discharged. If that figure of 5,000 was added to the 40,984 fired by Reno and Benteen’s men, then the cavalry fired 45,984 rounds of ammunition in all parts of the battle, leaving about 91,968 bullets and shell casings. Yet far fewer than 91,968 such artifacts were found in recent excavations, and some of these objects could be misleading because the battlefield could have been contaminated with items that appear to have been part of the fight but actually had little or nothing to do with it.

Godfrey thought that some of the firing he heard was not directly related to the battle:

We heard two distinct volleys.... I have but little doubt now that these volleys were fired by Custer’s orders as signals of distress in italics in the original] and to indicate where he was.6

Some of the artifacts could be misleading because a number of the troopers may have fired their weapons at themselves. Wooden Leg reported that many of the soldiers in Custer’s battalion “went crazy. Instead of shooting us, they turned their guns upon themselves.”7 These soldiers could have panicked perhaps remembering the warning to save the last bullet for themselves to avoid being captured and
tortured, but there would be no way of future researchers to know if a cavalry bullet was fired at an enemy or at a friend.

Who fired the Weapons?

Another issue is the question of who was actually firing the cavalry’s weapons because the warriors retrieved carbines and pistols from the men in Reno’s valley fight and from Custer’s column. On July 24, 1876, Capt. J.S. Poland wrote:

They [the Indians] report,... that in the three (3) fights they have had with the whites they have captured over 400 stand of arms—carbines and rifles (revolvers not counted).

These three engagements were likely the Battles of Powder River, the Rosebud, and the Little Big Horn. Capt. Poland added:

A report from another source says the Indians obtained from Custer’s command 592 carbines and revolvers.⁸

After the destruction of Custer’s battalion at the Little Big Horn, the Indians could have recovered over 200 army carbines and over 200 pistols as well as the remaining ammunition. As Sgt. Ryan stated, “The Indians got all their Springfield .45 caliber breech loading carbines,” and ammunition from Custer’s men that was used against the troopers on Reno Hill.⁹ Varnum also believed that the Indians used Custer’s guns against the men on Reno Hill.⁹

The best guns in the hands of the Indians, were the carbines taken from Custer’s men.¹⁰

Wooden Leg reported that:

The Indians took the guns of these soldiers and used them for shooting at the soldiers on the high ridge [Reno Hill].¹¹

Mrs. Spotted Horn Bull reported that the Indians also got guns from the soldiers in the valley fight:

The Indians fought the soldiers with bullets taken from the first party that attacked the village.¹²

In referring to Custer’s Battalion, Red Horse stated,

It was with the captured ammunition and arms that we fought the other body of troops [on Reno Hill].¹³

Wallace testified about the difficulty in interpreting cartridge shells found where Custer and his battalion fought:

You would find them scattered around but whether they had been used by the men or the Indians, we could not tell.¹⁴

The Indians could have done some shooting with the captured cavalry carbines after the battle, and any resulting artifacts could be confused with the ones fired by the soldiers. When Edgerly advanced to Weir point, he saw Indians shooting bodies of fallen troopers on the ground.¹⁵ Spotted Horn Bull’s wife stated and Chief Gall affirmed that many warriors shot troopers that were wounded, dying, or were already dead.¹⁶ The Indians were also known to shoot ammunition in an act of triumph. As Edgerly stated, “It is the custom of Indians to do a great deal of firing to celebrate a successful fight.”¹⁷

Indians and Soldiers Remove Shell Casings

Many troopers said there were numerous shell casings on the battlefield after the fight. Lt. Edward Maguire, Capt. Moylan, Lt. Godfrey, Sgt. Ryan, and Lt. Wallace stated that they saw many spent cartridge shells next to the bodies of Custer’s men, but the recent excavations have found very few items. The soldiers might have found more, but the Indians had already removed some of the spent cartridge casings. Lt. DeRudio testified:

I saw [only] a few cartridge shells [on the battlefield]. I am informed that the Indians pick them up.

He was then asked, “Don’t you know they do it?” DeRudio then stated, “Yes, sir, I know it.”¹⁸

DeRudio also stated his opinion on Indians picking up shells:

I think their disposition would be to gather the shells. They would desire to preserve the shells to fit the carbines.

When asked if the Indians had picked “them all up” the lieutenant replied. “No, sir, they left some.” Again he was asked, “If they had time to pick them up at all, had they not time to make a clean job?” DeRudio replied, “I think so, but a few shells can be very easily overlooked.”¹⁹

Reportedly, the Indians took the shells to reload them for future use. The historian, John S. Gray, believes that:
The Indians [at the Little Big Horn] stripped the soldier’s bodies of clothing, arms, and ammunition, and as they customarily reloaded empty shell cases for their own use, they gathered up many of these, too.20

John Stands In Timber affirmed that the Indians took shells. He stated that the Indians often watched soldiers taking target practice, and

*The Indians used to go over there and pick up a lot of .45-70 lead and reload shells.*21

The army also had no interest in preserving the battlefield, and the troopers were under orders to pick up empty shell casings to keep the Indians from reloading them. General Order 13, issued on February 16, 1876, stated:

*Great care will therefore be exercised by all officers to prevent Indians from procuring the empty shells thrown away by the troops after firing, either in action or at target practice.*22

George Herendeen indicated that possibly some soldiers picked up bullets during the fight at Reno Hill.

*They [the Indians] fired at us from very long range and as the balls would fall among us we could pick them up.*23

**Plundering and Contamination of the Battlefield**

This plundering of the battlefield was only the onset of a lengthy process of removing artifacts from the location. Tourists came to the area starting in 1877 which began the stream of visitors that continues to this day. As Don Rickey, Jr. has observed:

*Many of the early visitors to the Custer Battlefield were avid relic hunters. Thousands of cartridge cases, many relics from the Indian village site and Battlefield proper, and even human bones were taken away as mementoes of visits to the Battlefield.*24

Some tourists even chipped stones from the Custer Monument on Last Stand Hill in the mid 1880s and took them as mementos.25

A significant act of plundering the battlefield was caught on camera in 1916. The photo caption reads: “Gen’l. Godfrey and the late W.M. Camp searching rocky ridge near Reno’s Hill for cartridge shells, 1916.” Walter Mason Camp was a tireless
researcher on the Indian Wars of the Far West. His interview notes, correspondence, and accounts he gathered over decades are among the most important compilations of sources relating to the Little Big Horn. Godfrey was a participant in the battle on Reno Hill who wrote one of the most important accounts of the engagement. These men, who should have known better, were apparently oblivious to the potential value of such artifacts. No doubt many others who removed artifacts also cared little if they destroyed critical evidence.

Another problem is the contamination of the location by artifacts that can be confused with those left during the battle. Soldiers frequently visited the area especially when Fort Custer nearby was in operation from 1877 to 1898 and “Picnicking at the Battlefield was a proper diversion for Army personnel stationed there.” Historian, John S. Du Mont, has commented:

*Cavalry exercises were held on the battlefield once Fort Custer was established nearby, in 1877, and live firing was employed. Also hunters and Indians roamed the area for many years, and this alone would preclude all empty cartridge cases being of the 1876 variety.*

In 1886, troopers came to the battlefield to reenact part of the combat. Some of the men were arrayed in skirmish lines, and they fired volleys, no doubt leaving bullets and spent casings. The photographer, David F. Barry, took pictures of these men shortly after they had discharged their weapons.

**Further Problems with the Physical Evidence**

I estimate that upwards of 91,968 bullets and spent shell casings from the army could have been originally on the battlefield because of the fight. But the location of only 1,108 or a little more than 1% is known with certainty, and there is no way of knowing if some of these objects supposedly related to the battle were actually left there as part of the combat or were introduced later. I also wonder if such a small percentage is statistically significant. This small percentage would only be important if it were a representative sample similar to the data used by modern political pollsters who can derive much by a small sample. To make valid conclusions, modern pollsters must get their information from a truly random sample, and I seriously doubt that the artifacts found on the battlefield fit that parameter. Rather, the removal of artifacts was done in such a haphazard manner that the objects which remain could hardly be representative of what was taken. This means that a sampling error must be involved.

The reliability of the evidence presented by the bullets and spent shell casings is suspect. Only a very small number of such artifacts have been found in the area of the valley fight where Major Reno’s men engaged many hundreds of Indian warriors. From the accounts of numerous witnesses, the men in Reno’s battalion dismounted and formed a skirmish line. They fought in that position until they first retreated to the timber along the Little Big Horn River and later to the top of Reno Hill. If the only evidence available was the bullets and spent shell casings, there would be no way to demonstrate that any of this had happened.

The physical evidence on Reno Hill presents a similar problem. The bullets and spent shell casings have been found on the defense perimeter at that position. This is not surprising because in that area is well known from the testimony of the participants as well as some of the rifle pits dug by the men which still exist. But much of the action at that position cannot be established by the physical evidence. Remarkably few battle-related artifacts have
been found on sharpshooter ridge even though numerous accounts testify that the Indians fired from that position for hours, and many soldiers fired back at them. When men volunteered to retrieve water from the river on June 26, four men, who were considered to be good shots, took position on a little knoll extending from the army position on Reno Hill to give them covering fire. Once again, almost nothing was found at that location, and there is also little physical evidence to support the fact that the men went to the river for water.

In some of the most impressive military feats in the battle, Maj. Reno and Capt. Benteen led attacks on foot to dislodge the warriors threatening to close on the army positions. These advances include Benteen’s Company H driving Indians away from the south end of the line. Also, three companies charged in the direction of Sharpshooter Ridge. If we were to rely solely on the excavated artifacts, there would be no way to tell these actions ever took place.

The question of the reliability of bullets and spent shell casings and the deployment of men with Custer’s battalion must also be addressed. The few scattered artifacts found in that area are of highly questionable accuracy and authenticity, and they do little to shed light on the troopers’ deployment and the intensity of the fighting. Arguments which indicate that little fighting took place at Medicine Tail Coulee, the location of skirmish lines on Calhoun Hill, and the nature and duration of the fight on Last Stand Hill are seriously flawed because they are based on sparse and unreliable physical evidence only recently retrieved on the field of battle.

Any interpretation based on this lack of physical evidence found on the battlefield must take into account eyewitness reports of the battlefield shortly after the fight. Lt. Edward Maguire came to the site of the engagement on July 27, 1876. As the “Chief Engineer Officer,” he carefully examined the field of battle and drew a map of the topography and the location of various actions that took place.

At the Reno Court of Inquiry in 1879, he testified that he found much physical evidence to indicate fighting at various places associated with Custer’s battalion on the battlefield.

Question: “Were there any evidence of fighting at or near the point ‘B’? [on the map—i.e. Medicine Tail Coulee], “If so, state what evidence and how near the first was.”

Maguire answered: “There were empty shells lying all around....” Apparently referring to Last Stand Hill, he added:

Every now and then we would find an empty shell and as we advanced up further we found dead bodies in a circle around the crest of a little hill and quite a number of empty shells.29

Maguire’s testimony continued when he was asked the question “How near to the point ‘B’ was it that you found empty shells and evidence of fighting?” The witness answered:

Upon a little rise, on the slope, as if persons had lain there to take advantage of whatever protection there was in the formation of the ground. There were government shells and Winchester shells and one peculiar brass shell was found that nobody knew anything about but which was supposed to belong to General Custer’s pistol.30

Clearly much evidence had been removed from the area, and the fact that very few bullets and spent shell casings have recently been found in no way detracts from the validity of Maguire’s observations.

Gustave Korn, a trooper who fought in the battle, examined the Last Stand Hill after the encounter and indicated that much firing had taken place at that location. He stated that the dead officers and men were found in a circle, and they had expended all their ammunition, meaning, no doubt, that many spent shell casings were found at the location.31

Also, the supposition that there was no desperate and prolonged defense at Last Stand Hill because few bullets and shell casings have been found there is based on faulty assumptions. No one knows how many artifacts were left there at the time of the battle, and no one knows how many items were removed from the location by subsequent generations of memento searchers. What few artifacts that have been found at the site is not sufficient to support any assumptions about the fight.

Additionally, other interpretations of the artifacts are also based on faulty assumptions. When three spent shell casings shot from the same cavalry carbine were found on the field of battle, some researchers jumped to the conclusion that a trooper fired each of these while he was retreating. Yet the artifacts do not indicate if the man was retreating or advancing, or if he retreated and advanced alternately. The casings also do not indicate when these
artifacts were left, or even who fired the weapon. The person wielding the carbine could have been an Indian, and the gun could have been fired after the battle.

More reliable information on the fate of Custer’s men can be found in other areas. Even though the accuracy of the location of many of the markers of where the bodies of the fallen troopers were found has been questioned, the authenticity of this information is much more reliable than that of bullets and spent shell casings. At least, we know that the bodies were those of fallen troopers, and we know when they died. Even if the Indian accounts of the Custer fight are vague and contradictory at times, they still present many insights and observations available nowhere else.

**Did the Cavalry Carbines Jam?**

Another issue that historians have tried to resolve by the examination of spent casings is the question of reliability of the Springfield 1873 carbine used by the soldiers in the battle. Many participants stated that the copper shell casings often became jammed in the carbine, forcing the troopers to pry them out which was a situation that caused less combat efficiency at the fight. Yet some historians have rejected the direct evidence of the eyewitnesses and have relied on unreliable physical evidence to address this issue.

On July 11, 1876, Maj. Reno wrote to Gen. S.V. Benet complaining about the weapon’s performance in the engagement:

> An Indian scout [probably Curley], who was with that portion of the regiment which Custer took into battle, in relating what he saw of that part of the battle, says that from his hiding place he could see the men sitting down under fire, and working at their guns—a story that finds confirmation in the fact that officers, who afterwards examined the battle-field as they were burying the dead, found knives with broken blades lying near the dead bodies.32

Capt. James W. Reilly was the Chief Ordinance officer of the Military Division of the Missouri, and he explained in 1878 why there was difficulty in extracting spent casings from the carbine in the battle. He had talked with

one of the most intelligent and observing officers in the 7th Cavalry, and who was with Reno’s command at the date of the Custer Massacre.

The inquisitive captain learned some facts with reference to the bursting of the cartridge heads from the body in the carbine.

He stated that the cartridges had become covered with a coating of verdigris [deposit of copper carbonates] and extraneous matter, which had made it difficult to even put them in the chamber before the gun had been discharged at all. Upon discharge the verdigris and extraneous matter formed a cement which held the sides of the cartridge in place against the action of the ejector, resulting in the separation of the head of the cartridge from the body and its ejector alone. To confirm this theory the officer...had a number of the verdigris covered cartridges cleaned...and discharged, and in no instance did the shell fail to easily extract entire after explosion.33

By the time of the Reno Court of Inquiry in 1879, the problems with the cavalry carbines seemed to have become common knowledge. When the interrogator asked Lt. DeRudio:

> How many rounds of ammunition could the men fire from their guns without heating them? That is, with that rapid firing?

DeRudio responded:

> Not a great many. I noticed that the men had to take their knives to extract cartridges after firing 8 or 10 rounds.34

Lt. Godfrey wrote a lengthy account on the Little Big Horn, and he gave three reasons “Why Custer was Defeated.”

> The first two were the overwhelming numbers of the enemy and Reno’s panic rout from the valley.

The third dealt with deficiencies of the cavalry carbine:

> Third. The defective extraction of the empty cartridge-shells from the carbines.

He added:

> On the third we can only judge by our own experience. When cartridges were dirty and corroded, the ejectors did not always extract the empty shells
from the chambers, and the men were compelled to use knives to get them out. When the shells were clean no great difficulty was experienced. To what extent this was a favor in causing the disaster [Custer’s defeat] we have no means of knowing.35

Trooper Pvt. Charles Windolph, believed the extractor problems led to the death of many men and could have contributed to Custer’s defeat:

The soldiers, incidentally, were armed with single-shot 45-70 caliber Springfield carbines, an accurate and deadly weapon up to 600 yards. But when fired rapidly the breech became foul and the greasy cartridges often jammed and could not be removed by the extractor. This meant that the empty shell had to be forced out by the blade of a hunting knife. This very fact was responsible for the death of many a trooper this hot Sunday [June 25, 1876], and may actually have been the indirect cause of the great disaster.36

Another trooper, Pvt. William C. Slaper, praised Capt. Thomas French’s coolness under fire and his ability to deal with the cavalry carbine’s extractor problem in the battle.

Without appearing to be in the least excited, he would extract shells from guns in which cartridges would stick, and pass them loaded, then fix another, all the time watching in every direction.37

Few participants who mentioned the cavalry carbine saw no problems with it. One exception was a warrior named Lights who talked about the stand on Custer Hill:

As it was, a great number of Indians fell, the soldiers using their revolvers at close range with deadly effect. More Indians died by the pistol than by the carbine. The latter weapon was always faulty. It “leaded” [jammed] easily and the cartridge shells stuck in the breech the moment it became heated, owing to some defect in the ejector.39

Richard G. Hardorff disagreed with Horned Horse, and he replied in a footnote:

The facts contradict this statement. A laboratory analysis of recovered cartridge cases from Custer’s battlefield indicated extraction failure with only three of 69 identified carbines. The extraction failure on Reno Hill was four out of 60 identified carbines. This means that roughly five of every 100 troopers may have experienced extraction problems with the Springfield carbine.40

Paul L. Hedren also argued that the physical evidence contradicts the accounts of the participants in the battle. Hedren examined hundreds of spent casings that were found on the battlefield, and he argued that these artifacts are unquestionably accurate sources. In referring to collections of artifacts, Hedren states:

It is deemed fair to say that this accumulation of shells is a fair sampling of the cartridge cases found on the overall battleground from the standpoint of both Army and Indian expenditure.41

I must respectfully disagree with both Hardorff and Hedren. The accuracy of all of these artifacts is highly questionable, and they certainly do not disprove the theory of extractor problems in the cavalry carbine.

Some of the physical evidence could have been helpful in understanding the engagement in the years shortly after the battle. At the fifty-year celebration of the battle in 1916, two participants in the conflict, trooper Daniel Newell and
retired General Edward Godfrey, disagreed over the location of one or two points on Reno Hill and I [Newell] proved my claim by digging up some empty shells. The general complimented me on my memory of the affair.\textsuperscript{42}

While two participants in the battle still saw some value in the physical evidence, such an analysis by modern historians is nearly impossible.

I maintain that the evidence presented by the bullets and spent shell casings found on the battlefield are unreliable unless supported by other testimony, and any arguments based on these artifacts alone are little more than speculation.

\section*{Endnotes}

\begin{enumerate}[\textsuperscript{1}]
  \item M.A. Reno to General S.V. Benet, July 11, 1876, in James S. Hutchins (editor), \textit{The Army and Navy Journal on the Battle of the Little Big Horn and related Matters, 1876-1881} (El Segundo, CA: Upton & Sons, 2003), 81.
  \item \textit{Description and Rules for the Management of the Springfield Carbine, Carbine, and Army Revolvers, Calibre .45} (Springfield, MA: National Armory, 1874), 29.
  \item Scott et al., \textit{Archaeological Perspectives}, 170-171.
  \item W.A. Graham, \textit{The Custer Myth: A Source Book of Custeriana} (Harrisburg, PA: Stackpole), 142.
  \item Wooden Leg, \textit{Wooden Leg: a Warrior who Fought Custer} (Lincoln, NE: University of Nebraska Press, 2003), 231-233.
  \item Graham, \textit{The Custer Myth}, 46.
  \item Graham, \textit{The Custer Myth}, 347.
  \item Graham, \textit{The Custer Myth}, 347.
  \item Wooden Leg, \textit{Warrior}; 225, 232, 264.
  \item Graham, \textit{The Custer Myth}, 84, 85, 87.
  \item Graham, \textit{The Custer Myth}, 60, 62.
  \item Ronald H. Nichols (editor), \textit{Reno Court of Inquiry: Proceedings of a Court of Inquiry in the Case of Major Marcus A. Reno} (Hardin, Montana: Custer Battlefield Historical & Museum Assn., 2007), 68.
  \item Graham, \textit{The Custer Myth}, 220.
  \item Graham, \textit{The Custer Myth}, 89.
  \item W.A. Graham (editor), \textit{Abstract of the Official Record of the Proceedings of the Reno Court of Inquiry} (Harrisburg, PA: Stackpole, 1954), 169.
  \item Nichols, \textit{Reno Court of Inquiry}, 322.
  \item Nichols, \textit{Reno Court of Inquiry}, 328.
  \item John S. Gray, \textit{Custer’s Last Campaign: Mitch Boyer and the Little Big Horn Reconsidered} (Lincoln, NE: University of Oklahoma Press, 2013), 384.
  \item John Stands In Timber, \textit{A Cheyenne Voice: the Compete John Stands in Timber Interviews} (Norman, Ok: University of Oklahoma Press, 2013), 213.
  \item General Order. No. 13, \textit{Army and Navy Journal}, Vol. 13, Washington, D.C., February 16, 1876. It further states, “No sperial Orders were issued from the Adjutant General’s Office on the following dates: Wednesday, Feb. 16, Friday, Feb. 18, and Tuesday, Feb. 22, 1876.”
  \item Nichols, \textit{Reno Court of Inquiry}, 261.
  \item Don Rickey, Jr., \textit{History of Custer Battlefield} (Fort Collins, CO: Old Army Press, 2005, 1975), 56
  \item Jerome A. Greene, \textit{Stricken Field: the Little Big Horn since 1876} (Norman, OK: University of Oklahoma Press, 2008), 110.
  \item Greene, \textit{Stricken Field}, 40.
  \item John Sanderson DuMont, \textit{Custer Battle Guns} (Ft. Collins, CO: Old Army Press, 1974), 56. Note: Ammunition with copper cartridge cases would be used until supplies were exhausted.
  \item Rickey, \textit{Custer Battlefield}, 72-73.
  \item Nichols, \textit{Reno Court of Inquiry}, 8, 9.
  \item Nichols, \textit{Reno Court of Inquiry}, 9.
  \item “Custer Massacre: Trooper Korn Retells the Story of the Fight,” \textit{Milwaukee Sentinel}, July 26, 1885.
  \item Hutchins, \textit{The Army and Navy Journal}, 81.
  \item Nichols, \textit{Reno Court of Inquiry}, 346.
  \item Graham, \textit{The Custer Myth}, 146-147.
  \item Charles Windolph, \textit{I Fought with Custer} (New York: Scribner’s & Sons, 1947), 92.
  \item E.A. Brininstool, (editor), \textit{Troopers with Custer: Historic Incidents of the Battle of the Little Big Horn} (Mechanicsburg, PA: Stackpole, 1994), 55.
  \item Richard G. Hardorff (editor), \textit{Lakota Recollections of the Custer Fight: New Sources on Indian-Military History} (Spokane, WA: Clark, 1991) 173.
  \item Richard G. Hardorff (editor), \textit{Indian Views of the Custer Fight: A Source Book} (Spokane: WA: Clark, 2004), 41-42.
  \item Hardorff, \textit{Indian Views}, 42.
  \item Paul L. Hedred, “Carbine Extractor Failure at the Little Big Horn: a New Examination,” \textit{Military Collector & Historian} (Summer 1973), 67.
\end{enumerate}