

THE GREATEST OF WRONGS EVER DONE:  
AN ARCHAEOLOGICAL EXAMINATION OF A “JUST” APACHE RESISTANCE

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A Thesis

Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Masters of Arts  
in Anthropology

Northern Arizona University

May 2023

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## ABSTRACT

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Without question, the Apache Wars remain an essential topic for understanding the evolution of conflict in the American Southwest (Hass 1990; Kintigh 2014; LeBlanc 1999; McGuire and Villalpando 2015; Vandkilde 2015). However, the examination of the Apache Wars by archaeologists has been, for the most part, marginalized in the American Southwest. The epic tales of Geronimo’s resistance against the U.S. Army make up most of what is known to the public. Yet, this war was not fought by one man; instead, a people fought it to maintain cultural identity and way of life. Thus, I propose that the Apache Wars fought against the U.S. from 1862 to 1882 were fought justifiably using asymmetric warfare. Moreover, they occurred to protect the existence of the Apache people. The intended outcome of this research is to answer three questions. First, how did the colonial entanglement with the Spanish and Mexicans lay the groundwork for the Apache Wars? Second, how did the Apache war shape Apachería, and was it justifiable? Finally, how does the Battle of Big Dry Wash represent Apache resistance? Historical and cultural analysis, oral traditions, and modern Military Intelligence methodologies applied in an archaeological context answered these questions. First, the colonial entanglements with the Spanish and Mexican empires created a collective memory of oppression and warfare among the Apache people that lasted three hundred years. This memory created a need for them to evolve forms of resistance that included a more asymmetric style of warfare to protract the United States into a long war, to escape policies of scalp hunting, extermination, and confinement to reservations lands, providing the Apache

ample justification for warfare under European ideals of “Just War” theory. Lastly, the Intelligence Preparation of an Archaeological Battlefield (IPAB) at the Battle of Big Dry wash depicts this resistance and the complexities of warfare that occurred as part of a revitalization movement that exhausted the Apaches will to fight.

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Map of Apachería

## ***Introduction***

The Prussian General and author of *On War* (1832), Carl Von Clausewitz, described war as an independent phenomenon but a continuation of politics by different means and cannot be limited to periods of active hostilities. Thus, conventional or unconventional, war is directed to achieve a political end state. But Von Clausewitz, like his fellow military theorists and philosophers, comes from a Western-centric idea of war and the state, which negates the rights of indigenous people to defend their lands as a continuation of politics, often by mounting long, costly, and bloody forms of resistance that incorporate forms of asymmetric warfare. The Apache wars fought from 1862-1886 highlight an inevitable tragedy of American imperial ambition that lacked moral and ethical justification for pursuing expansion.

Since the turn of the twentieth century, many scholars and military enthusiasts have repeatedly attempted to recant the history of the wars, exhausting the existing documentation and perspectives of soldiers and settlers (Welch et al. 2005:136). However, lacking in these studies is the incorporation of material evidence, specifically assemblages that unfold the depth of warfare that shaped Apachería. Thus, it is essential to not only consider how the Apache resisted U.S. colonial occupation from a historical context but also analyze the remnants of the physical evidence provided by my investigation of The Battle of Big Dry Wash, which is considered by scholars such as Harris (1938) to be the Apache's last stand.

Accordingly, I propose that the Apache's use of warfare in the American Southwest evolved to resist the oppressive nature of colonial authority to protect a cultural way of life within Apachería. This thesis aims to answer three questions. ***First, how did the colonial entanglement with the Spanish and Mexicans lay the groundwork for the Apache Wars? Second, how did the***

*Apache wars shape Apachería, and were they justifiable? Finally, how can Intelligence Preparation of the Battlefield (IPB) be applied in archaeology to examine the physical evidence of Apache resistance at the Battle of Big Dry Wash?*

To answer these questions, examining the complex relationships between the Apache people and the colonial powers that sought to tame them is necessary. By doing so, it asserts Liebmann and Murphy's (2010) conclusion that the colonial landscape was a patchwork of domination, resistance, accommodation, and negation, used by indigenous people to exert various strategies to resist domination on the landscape within select spaces. Then we must negotiate the war itself and evaluate the evolution of Apache resistance that spanned the latter half of the 19<sup>th</sup> century and consider its moral justification concerning total war to articulate the emphatical intricacies of war itself and the impacts it has on people. Finally, this thesis will focus on material evidence of the war by evaluating and analyzing The Battle of Big Dry Wash (1882). This will be done to not only provide evidence for our first two tasks but show that battlefield and conflict archaeology has the power and ability to illuminate human behavior under the stresses of battle and ameliorate the discourse of its place within the field Apache study (Scott and Fox 1987; Scott et al. 2007).

## Chapter 1: Apachería and Colonial Entanglement

*"Having issued a definitive sentence of death in just war in this Kingdom against the entire nation of Apache Indians, and those that join with them, infidel, irreducible, common enemies of our Holy Catholic Faith and all the Christian Indians of this Kingdom.... they may be taken out of this Kingdom and distributed [to labor] for a year...these in no time shall be allowed to return to the kingdom."*

*-Don Juan Manso, Governor of Santa Fe*

Spain's expansion into Apachería during the mid-16<sup>th</sup> century marks the beginning of a long, complex entanglement of imperial and colonial occupation in the region that Mexico and the United States later replicated. Smith (2012) outlines imperialism as a system of control that seeks territorial and economic development, indigenous subjection, the spread of ideals, and knowledge acquisition. Moreover, it allows the facilitation of colonialism to become the outposts of imperial imagery that seeks to replicate the ideal appearance of civilization. Therefore, it must be noted that throughout Spain's occupation of Apachería, their imperial power and dominance were exerted through colonialism. In contrast, Mexico's land acquisition brought it into their direct imperial control. The United States, however, implemented both colonial and imperial rule defined by pre- and post-civil war authority and power.

The Spanish first encountered the indigenous people of Apachería near Chichiticalli; Coronado's chronicler Castaneda referred to them in his book *The Journey of Coronado* as the most fearsome, vicious, and cunning people they encountered throughout their journey. This description of the region's nomadic masters of the bison became known as Querchos and set the

tone for the perception and treatment of the Apache for centuries to come. Césarie (1955) suggests colonial superiority relies on turning the "other" into a barbarian and implementing torturous events of hidden and visible structures emplaced to create a hollowing of the mind, body, and spirit. It has no distinction between cultures. Thus, the establishment of *habitus* is created. That is, as Bourdieu (1977) describes, colonialism becoming a volatile configuration for the colonized that attempts to create a particular class of conditions of existence that produce systems of durable, transposable dispositions; structured structures predisposed to function as a collectively orchestrated set of rules without being the product of organizing action of the conductor. However, the Apache's continued disregard for colonial structures led to a cyclical pattern of indefinite warfare over the landscape in time and space that, over 300 years, segregated a culture from their home through forced migration, leaving a need for them to share a collective memory of their culture and homeland, and maintain a continuous connection to that home through a sustained consciousness and kinship relationships, thus, creating what Conrad (2021) suggests is a diaspora generated through colonial policy and moral justification.

In a letter to King Carlos of Spain in 1630, Father Benavides declared the Apache part of a "huge Apache nation," who roamed the landscape separate from the Puebloan and Zuni. He categorized these people as the Gila Apache, Navajo Apache, and Vaquero Apache. He further describes them as a fiery and belligerent people who are crafty in war and scoff at the idolization of religious figures complicating colonial rule (Lockwood 1938: 12). These complications would persist due to colonial authority's continuous struggle to clench the absolute power over *Apachería*. This lack of total control can be attributed to the difficulties of colonial leadership in comprehending two complexities of Apache culture. First, Apache maintained a nomadic lifestyle with little or no intention to change (Lockwood 1938; Worcester 1979, Meadows 1999; Terrell

1966, Bittle 1979; McAllister 1937; Perry 1991; Conrad 2021). Such mobility blurred the lines of European and Euro-American understanding of the landscape, property, and sedentary life-ways. In Apache culture, everything they made was designed to meet indispensable needs and adapted to their mobile lifestyle. For example, many groups of Apache viewed their homeland as a chain of diverse landscapes with valuable resources. They moved seasonally to plant crops, hunt, or harvest wild fruits yearly (Basso 1971; Conrad 2021). Secondly, the Apache maintained politically autonomous groups, or *gotah*, under the leadership of a *nantan* (spokesman, headman) through informal influence (Conrad 2019: 20). This allowed an individual to speak on behalf of a specific band or group but not the Apache as a whole.

Entanglements with the Spanish and Mexicans unequivocally led the Apache to experience the hardships of diaspora produced by a diplomatic policy that led to economic dependency and violence. These mantras of colonial expression created an unstable space of amity and enmity (Lahti 2017:3). Each colonial power's essential task centered on maintaining safety for their colonies and protecting their economic ventures. To the Spanish, controlling the plains trade proved a necessary objective because it enabled the passage of commerce to and from New Spain. To the Mexicans and Euro-Americans, it was an expansion into western territories that promised wealth and land. Yet, problematic to each colonial authority was their perception of the landscape. From a postmodernist perspective, the landscape is where individual action, history, politics, and meaning have been generated (Bender 1993; Olwig 1993; Rodman 1992; Tilley 1994). In *Apachería*, the landscape did not belong to the dominant colonial power. Instead, the Apache viewed the land contextually as a life process formed by ancestral occupation. Ingold (2012) suggests it held a structured experience that manipulates time and consciousness that shapes individual action and different groups' identities, i.e., Apache band names like Cúelcahén Ndé,

"people of the tall grass." Likewise, as this analysis will later show, the landscape served as a place of resistance that offered significant advantages (Ingold 2012; Upton 1988).

Incorporating the horse and the gun into Apache culture created a new form of resistance that increased their mobility and ability to exert war and power upon the landscape. (Baso 1971; Cozzens 2001; Watt 2012; Worcester 1979). Mastering these skills and their inept knowledge of warfare strengthened their ability to raid and resist colonial aggression. Consequently, this dynamic transference of energy presented difficulties for colonialists to execute successful pursuits and engagements with the Apache. Because of these difficulties, colonialist authorities initially implemented the use of indigenous groups like the Pueblo and Navajo to help identify Apache enslaved people and "unpeaceful" renegade Apache; later, they successfully pitted Apache against Apache. This practice solidified colonial power over the colonized. As Fanon (1967) advises, this perverse logic elucidates the belief that colonialism is not satisfied merely with hiding a people in its grip and emptying the native's brain of all form and content and distorts, disfigures, and destroys the past of the oppressed. Further, it used it to segregate and prevent indigenous peoples from conspiring in a unified manner, mirroring similar methods evident in the Atlantic Slave trade by the Oyo Empire. Subsequently, it created deep disdain and contempt among the natives, perpetuating violence throughout the region against each other and the colonials. However, in 1680 the Apache and Navajo, and Pueblo warriors set aside their indifferences and conducted a successful revolt exiling the Spanish in New Mexico. This rebellion changed the dynamic of the slave trade generating an increase in Apache's violence and raids to ascertain commodities, recover kin, and end their victimization in the slave trade.

### *Colonial Policies and Diaspora*

Colonial and imperial authorities in Apachería continuously developed "new" methods of "dealing" with Apache resistance. The policies were derived toward displacing, pacifying, and eradicating them physically and organically from the landscape in time and place. Imperial authorities instituted and maintained methods of permanent surveillance to control the indigenous population of Apachería, establishing presidios and missions throughout New Spain. Many of these settlements were constructed in response to the chronic raiding and wars taking place within the region. Their purpose was to serve as an outpost to guard the frontier for settler colonies. Yet, Conrad (2019) suggests that they were often used as trade centers between the Spanish and Native populations almost as much as they were for launching military campaigns against the Apache to perpetuate the slave trade. After Mexico gained its independence from Spain, it took control of these outposts. Many were in poor condition or closed due to Mexico's inability to exert power throughout their empire.

The Spanish and Mexican slave trade, or a form of forced labor, played a significant role in the lives of the Apache people. It influenced relations with neighboring groups (i.e., Navajo, Pueblo, Comanche); and stimulated diplomacy, trade, and warfare strategies. Moreover, it crafted a perennial memory for the Apache people of the significant loss of kin to bondage and new lives of labor in proximate and distant lands (Conrad 2021: 113). All of which were critical to the creation of the diaspora. The use of indigenous people for economic gain was intended to generate biopower that lent to the extraction of minerals and the development of colonial societies that could create wealth and promote individual and regional ambitions. For example, the slave market in Parral, Mexico, grew to one of New Spain's most extensive. Here, a slave trader could garner up

to 160 pesos per Apache and upward of five thousand pesos or the equivalent of two years of salary if they sold in bulk.

Similarly, under Mexican authority, hundreds of Apache children were baptized by priests before they were sold for one hundred fifty pesos on the open market (Terrell 1972: 153). Among those who benefited most during the Spanish occupation were Friars and Governors. They were the two factions in the New Mexico colonial society that oversaw the perpetration of and helped make the threat of enslavement and diaspora a constant state of being for the Apache. For example, Santa Fe Governors such as Don Juan Manso were slave traders who consolidated administrative authority over northern New Spain in pursuit of expanding personal wealth. He and his predecessors used their power to generate a means to wage a "just war" based on racial fabrications that included the cannibalism of Christians. Apache resistance against colonial authority was considered rebellion against the empire, a crime that warranted capital punishment. Rather than disposing of their commodities forthwith, Governors would show "mercy" by allowing captives to be held in deposit either to their masters or the estate for up to fifteen years (Conrad 2021: 40). In response to the growing kleptocracy, the King of Spain in 1693 decreed that slavery would no longer be permitted as a viable economic venture (Conrad 2021; Worcester 1979). However, Spanish officials in the new territories responded by saying, "I obey but do not comply" (Worcester 1979: 11). Despite the decree, military raids against rancherias to seize captives maintained momentous government and public support. This was done to control Apache depredations and feed an economic demand for biopower. Spanish citizens circumvented these new policies by "Hispanicizing" Apache captives and paying them for their services. Their unique function provided assimilation into Spanish colonial societies in Mexico, the Caribbean, and later Cuba remaining a source of free labor throughout the Spanish Empire. Mexico's acquisition of the

Apache “problem” saw little change to policies established by the Spanish. They continued raiding Apache to take captives for the use of labor and kill all Apache who refused to surrender. Because of their poor military force posture in the region, Mexican authorities utilized Ute, Comanche, and unconscionable civilians to conduct the raids on their behalf (Terrell 1972: 154).

Imperial authorities negated opportunities to create a lasting peace among the Apache by restoring those held in captivity. Their failures to negotiate beyond their interests perpetrated the mechanical structures of covert and overt forms of conflict that included the Apache De Paz program and scalp hunting (Conrad 2021; Lockwood 1938; Worcester 1979; Terrell 1972). The Apache de Paz program began in the late 1780s. The Spanish formulated it as a practical alternative to waging total war against the Apache to reduce economic pressure on the crown and protract power within *Apachería*. Moreover, it was designed as a system of pacification that would convert the Apache to sedentary Christians by bribing them with gifts, rations, protection, and land. In return, the Apaches swore an oath to be peaceful. They would cease raiding activities and join the military as axillary infantrymen or scouts. By 1793 nearly 2,000 of the estimated 11,000 Apache participated in the program. It was dispersed throughout eight *establecimientos* (establishments or settlements) near Spanish presidios that spanned Laredo in the east and Tucson in the west. According to Babcock (2016), the Apache de Paz program was the earliest constitution of a military-run reservations system in the Americas. However, its cost and lack of oversight made it a program that provided the Apache with a strategic avenue of agency, exploitation, and resistance to imperial authority. Conrad (2019) suggests that the Apaches de Paz often joined those outside the system in participating in a raiding-and-trading economy that resembled past patterns of life-based and was influenced by Spanish politics, environmental stressors, and disease, according to Mangas Coloradas Apache outside the peace program remained at risk of being attacked and exiled

during this period forcing many of them to “quit the valley and fertile parts to live in mountains and rugged and unfruitful places” (Conrad 2019:175).

The Apache de Paz program began declining during the Mexican war for independence. Economically, the Spanish could not continue provisioning the Apache and maintain the necessary resources to put down a revolution. As a result, raiding increased, and more Apache left the *establecimientos*. Consequently, Apache politics were divided. Some leaders thought it best to reinvest in a raiding economy, while others, like Juan Jose Compa, thought the Apache should participate in negotiations with the newly formed Mexican Republic (Babcock 2016; Conrad 2019).

Like the Spanish, the Mexican government attempted to bribe the Apache into submission by continuing a shell of the Apache De Paz program. However, they never intended to keep the promises they made. In 1835 the Sonoran legislature issued a reward of one hundred pesos for the scalp of any Apache male over fourteen. It was common for them to contract the work to Euro-Americans who had made their way to the territory. One example was the Johnson massacre. In 1837 John Johnson was hired by the governor of Sonora to pursue Apache in southern New Mexico. Under cover of being a merchant Johnson began trading with Juan Jose Compa and his brother Juan Diego the former leaders of the Janos Apache de Paz who reverted to raiding due to failed Mexican relations. On April 22, they met with Johnson to exchange goods. Johnson ordered his men to shoot the brothers and their associates. In the end, more than twenty Apache were dead and scalped. Conrad (2019) indicates that this incident exemplified a shift in the broader relationships between Euro-Americans and Mexicans. Moreover, it is remembered as the first incident in a series of treacherous attacks on the Apache people.

## **Chapter 2: The Apache Wars (1854-1885)**

The Apache wars between 1854-1885 resulted from a continuation of government policies and failed counterinsurgency efforts that violently sought to rid the landscape of Apache in the pursuit of a new imperial expansion (Lahti 2017; Conrad 2019). War in this time and space was waged as an alternative means to politics that no longer required a defense of a crown. Instead, it occurred on behalf of the existence of everyone to either maintain what remained of cultural identity or destroy one. The Apache Wars constituted the most prolonged military engagement in the history of the United States. From the beginning to the end, it mobilized entire populations, including vast economic resources, for wholesale slaughter and the continued pursuit of power, dominance, and coercion (Vandkilde 2003:126). It was, as Terrell (1972) suggests, an indestructible bond of a “united” nation formed by a collective memory of an entire people, bound through years of warfare and raiding, that included a precipice to justifiable conflict against the Euro-American colonists. Thrapp (1967) proposes that the Apache wars with the U.S. can be divided into two phases. The first began in the 1860s and ended in the early 1870s when the Apaches were trying to prevent U.S. encroachment into their territory; it ended with establishing the reservation system. The second phase spanned the mid-1870s to 1886. It can be defined as a series of breakouts from the reservations and resistance of colonial authority. Trapp’s interpretation of each phase of the war has its merit, and I agree with defining factors that separate them. However, for my evaluation of the Apache wars, it is better to divide the two phases into pre- and post-civil war to incorporate critical policies and engagements that began in the 1840s.

When the United States signed the treaty of Guadalupe Hidalgo in 1848, they adopted a 200-year counterinsurgency war in *Apachería*. This landscape shaped by Spanish and Mexican

colonial occupation was a cacophony of violence, displacement, and loss endured by the Apache and consequently resecured by them at a high cost. Moreover, it crafted a collective memory based on diaspora that reshaped their culture and molded the landscape into a sophisticated principality of asymmetrical warfare. In the contest for Apachería, this system of warfare epitomized the antithesis of 19th-century Eurocentric principles on the war in favor of guerilla tactics, subversion, propaganda, and terrorism by all parties to balance power with power and force with force (Niebuhur).

Modern counterinsurgency theorists such as Kilcullen (2009) and Smith (2019) propose that *Asymmetric Warfare* is an alternative method of war that applies classic techniques of guerilla warfare, terrorism, sabotage, subversion, and insurgency intending to drag an imperial colonial force into a protracted engagement that intensifies risk vs. reward. However, in the context of Apachería, asymmetric warfare is not biased, it holds no allegiance to the justification of war *jus ad bellum*, nor does it seek to abide by any measure of acceptable aggression. Instead, asymmetric warfare tactics and techniques (TTPs) were applied by both parties in a broad context to either 1) extinguish the enemy entirely or 2) pacify the enemy into moldable objects. The latter requires harmonization of power and virtue, and the former validates power and force as "total war." Applying Asymmetrical Warfare by the U.S. to impede the Apache problem was essentially a derivative of Eurocentric policies that failed to comprehend the complexity of the landscape becoming fixated, extended, and constricted. It maintained views and policies that mirrored those implemented by the Spanish and Mexicans before them (Lebovic 2019:4).

*Pre-Civil War*

By applying the processes of war as defined by Vayda (1976), early conditions conducive to war between the "new" colonial occupant and the Apache are evident, particularly as policies became fixated on boundaries and consolidation began to perpetuate ecological conditions that started an escalation of conflict from one phase to the next. These perturbations proved crippling to many Apache groups throughout the wars, creating difficulties in maintaining their traditional lifeways, which were crafted out of warfare and displacement for the last two centuries. Article XI of the Treaty of Guadalupe Hidalgo was the first of a series of significant policies engineered to destabilize the Apache ecologically. This Article obligated the United States to maintain control of the Apache and prevent them from crossing the new boundaries to conduct raids into Mexico. However, it proved impossible because the United States failed to understand the complexities of the Apache diaspora, nor did they have the economic or military resources to do so. Thus, depredations between Mexico and the Apaches continued for several decades. By 1850, Apachería saw a large influx of settlers seeking land and economic wealth (Worcester 1979:49). Their presence brought new economic opportunities for the Apache to capitalize on and ecological perturbations driven by racist perspectives. However, initial relationships between the two parties were amicable. In discussion with Captain Louis S. Craig in 1851, Mangas Coloradas, a prominent Chiricahua Chief, stated, "He had a great hatred for the Mexicans, but that he looked upon the Americans as his friends, and that instead of interfering with their animals should any go astray, he would see that they were brought." Sweeny (1998) writes that Americans had not yet committed an egregious act to warrant open hostilities in the Apache view of the universe. Nevertheless, his attempt to maintain peaceful relationships meant the Apache had to rely again on the welfare of the Mexican government.

In 1852 territorial governor James C. Calhoun of New Mexico lamented the sentiments of settlers who felt victimized by the economic practices of the Apache and feared an Indian uprising against the U.S. government (Conrad 2019; Lahti 2017; Thrapp 1967). Later that year, Calhoun entered negotiations with the Chiricahua Apache in a treaty that sought to cease all hostilities against the United States and its allies. The Apache were expected to recognize U.S. jurisdiction and laws, allow military and trading posts to be established, not raid American citizens passing through the area, and end incursions into Mexico. Moreover, it allowed the U.S. to designate, settle, and adjust their territorial boundaries when and where they saw fit and exclude Apache from them. In return, the Apache expected to maintain autonomous land from settler incursion, fair treatment, and gifts. Lahti (2017) suggests that the Apache most likely interpreted the pacts made as payments of peace that meant very little enforcement. Michael Steck, the U.S. agent assigned to the Apache during this time, conceded that ecological perturbations of war and colonial occupation had degraded the landscape severely. The loss of kin and traditional hunting lands made raiding material culture and livestock a significant part of their economy. If taken away by U.S. policy, only two options existed a war of extermination or a reliable rationing system supplemented by cultivating the land (Conrad 2019; Lahti 2017, Sweeny 1998). This logic of thinking by Steck began an extension of U.S. policy that no longer intended only to constrain the Apache ecologically but isolate them into pacification.

The Fort Thorn Treaty of 1855 sought to do precisely that. Under the terms of this treaty, leaders of the Chiricahua agreed to cede land totaling twelve – fifteen thousand square miles to the government in exchange for regular rations, tools, and annuities, leaving them on a strip of unfavorable land that invoked tension among group dynamics. To the Americans, this treaty meant new land and opportunities. To some Apache, it was a way to preserve their land before it was

gone. Yet, it is likely that Mangas Coloradas detested the outcome of the treaty because he knew the repercussions that would come from it. In the end, Congress refused to ratify this treaty, and five others liked it because it felt the government should not have to pay the Apache for land it lawfully acquired from Mexico.

These treaties failed to confine and restrict the Apache for several reasons. The first and most obvious reason is that the treaty was written with colonial intentions to establish a set of structures unfamiliar to the Apache, i.e., borderland boundaries and colonial laws. The Apache could not understand the allegiance the U.S. had to ensure they did not raid Mexico. To them, Mexico was their enemy and had been the enemies of the Americans; why, then, should they cease raiding south of the border if they behaved north of it (Cozzens 2001; 6)? Secondly, the U.S. failed to recognize the importance of decentralized authority within Apache culture. Power was a variable sum to the Apache, not fixed but present among all. Each person had the right to make decisions (Parsons 1971). Instead, they negotiated terms of treaties based on Eurocentric ideals of centralized forms of government. Finally, they did not constitute the "Apache principles of war which Watt (2012) states "are a product of a social organization."

The treaty's failures had little impact on colonial ideals to gain hegemony over Apachería. Instead, it offered policymakers the opportunity to extend their objectives in the region by creating additional goals that were more attainable in the short term, fixating on constricting the Apache's access to resources and land (Lebovic 2019:5). The increase of settler colonialism and military force into the hinterlands of Apache territories continued to apply substantial pressure upon their lifeway, making an ordinary life unfeasible (Lahti 2017:207). Cynics of Steck's policies adopted a Weberian approach to power that sought to press their will upon the Apache people through force or the threat of it. This began a cause by the populace and government officials to substantiate

"extermination" and military campaigns as formidable policies that gained momentum but lacked a justifiable catalyst.

In November 1856, Coyotero Apache raiders killed a Navajo agent Henry L. Dodge, the eldest son of Senator Henry Dodge of Wisconsin. In response, Colonel Benjamin Bonneville organized a pursuit toward the Coyotero heartland north of the Gila River. However, the Army moved opposite their intended target toward the Mimbres River. On May 24, the columns attacked a target of opportunity in a canyon. After their actions, five warriors and one woman were killed, and nine women and children were taken captive. One month later, three companies of dragoons engaged a large Coyotero camp killing twenty-four warriors, including the murderer of Dodge; they seized twenty-six women and children, taking them captive as well. It is important to note that up until this attack, the White Mountain Apache had been relatively untouched by colonialism (Lahti 2017; Conrad 2019; Hutton 2016). They maintained a hunter-gather lifestyle that allowed them to cultivate the soil, raising wheat, corn, and pumpkins. Indian agent John Walker said, "Give them presents, hoes, and spades so they can cultivate the land more extensively." In the aftermath of the skirmishes, the Army viewed this operation as a success for two reasons. First, they were able to garner retribution for a murder; second, they used violence effectively to force the powerless to accept the legitimacy of American occupation, or so they thought.

On the contrary, these events proved that engaging the Apache in their territory would be costly in time and manpower, as it took 600 troops. Furthermore, these skirmishes set a precedent that the use of asymmetrical warfare superseded the traditional force-on-force conflict of the era. Moreover, it allowed the killing of the innocent and the capture of kin to become a vassal of terror that protracted and retracted the intensity of the wars and generated an economy based on

wholesale slaughter. Finally, they reignited an insurgency with a quest for revenge that would bring Apachería into total disarray.

The outbreak of the Civil War in 1861 generated a security vacuum that hindered the Army's ability to conduct offensive operations. Cochise and his fellow Chiricahua made significant gains in their campaign to rid Apachería of all settlers. Depredations were so frequent and intensive that Tucson's population dwindled to two hundred (Roberts 1994; Conrad 2019; Hutton 2016; Lahti 2017). The Bascom affair and the battle of Apache Pass ensured that the subsequent five years would be the most hostile between the Apache and the populace of the Arizona territory, to the point that settlers feared central Arizona would be lost (Terrell 1972: 108). However, under General James Carleton, strategies of asymmetrical warfare became orthodox to the Army to combat a growing insurgency.

In his General Orders dated May 1864, he planned for a full-scale war of extinction of all the Apache to bring lasting peace; and sought the aid of the Mexican Army to help him do it. Likewise, he erected a series of Forts throughout the region that would serve as outposts and staging areas for his Army of volunteers to facilitate his vision. However, his aspirations to conquer Apachería through "total war" never succeeded because he lacked the resources to do it (Conrad 2019; Hutton 2016; Lahti 2017). Recognizing the limits of his operational strategy, he sought to limit his constraints by implementing psychological warfare methods. For example, part of Carlton's policies ensured that all Apache men large enough to bear arms would "be slain wherever met," while the enemy's food supply would be poisoned with strychnine, and their material belongings would be ruthlessly destroyed.

Additionally, he sought to supplement his invalid number of soldiers by encouraging the populace to participate in the eradication of the Apache "problem." Lahti (2019) describes the

public view throughout the 1860s. He believes that tensions became so exacerbated that extermination became the principal method for establishing a white settler society, temporarily reaching such heights that it became so popular that they believed and talked of nothing but killing Apache; to them, an Apache was nothing more than a rattlesnake. The Arizona Weekly Miner 1869 published a recipe using brown sugar and strychnine to kill an Apache (Baldwin 1965:33).

One example that would later be said by Geronimo to be "perhaps the greatest wrong ever done to the Indians" occurred when Mangas Coloradas was murdered. In January 1863, Mangas met with James Walker, a prospector near the mines near Pinos Altos, NM. Geronimo said the prospectors sought to exchange blankets, flour, and beef for peace. Mangas promised to return with an answer in two weeks. Having decided, he returned to meet with Walker on January 18. Upon arrival, the prospectors held a white flag of goodwill. As Mangas approached, they raised their rifles and took him and four other Apache hostage. Eventually, the four other captives were freed to leave, but Mangas had to stay for ten moons to allow the prospectors to extract gold from the mine. Brigadier General Joseph West took over the situation from Walker after hearing that Mangas was captured. Per Carleton's policies, the General had Mangas executed in a vile fashion. An eyewitness to the murder said the soldiers tortured him by burning his feet and legs with their bayonets. Then once satisfied, they shot him in the back six times. Afterward, they cut his head off, boiled it in a cooking pot, and sent it to a phrenologist for study. The incident report stated that the captive was shot trying to escape. In truth, they created a martyr (Roberts 1994; Conrad 2019; Hutton 2016; Lahti 2017). In response to the mutilation of their Chief's body, Apaches began to butcher white corpses matching the escalation of force imposed upon them by the colonialists.

The Chiricahuas mourned the loss of their great Chief. In response, Cochise and other Chiefs continued increasing their insurgent activity throughout their territory to slow Carlton's

offensive operations. However, his policies of asymmetric war continued to spread unabated throughout Apachería, reaching the Western Apache and Yavapai communities. In 1862 and 1863, these communities were engaged in ten skirmishes, most of which they initiated. In 1864 one Arizona journalist called for "the citizens to spread terror among the savages." They did that, killing an estimated 215 Western Apache and Yavapai throughout fifty military engagements. King Woolsey, a rancher from Prescott Valley, led the charge of these unwarranted killings. Woolsey's operations epitomized Carlton's vision. Throughout the year, he, along with a mix of Anglo civilians and O'odham-Maricopa Indians and the future Governor of Arizona John Goodwin, raided several Western Apache and Yavapai rancherias. In one instance, Woolsey, like Walker lured his Apache prey under the pretense of peace, offering them tobacco and clothing; however, his true intentions were unmasked when he had between nineteen to thirty-three murdered (Lahti 2019: 133).

In another instance, Edward Palmer of the Prescott Arizona Miner wrote in 1866, *A Great Slaughter of Apache's*. This letter was an account of an attack on a group of Apache by Company E, Arizona Volunteers (All Mexican unit) from Camp Lincoln on the Verde River. In the letter, the author describes the events as portrayed by Lieutenant Gallegos. At around 2:00 A.M., "The Apache were taken by surprise, their dogs not even hearing the approach of the troops, so stealthy was the march." "All of the caves that were accessible were filled with dead and wounded. Some thirty are believed to have been killed outright. Thirteen scalps were brought to camp, and twelve prisoners, two squaws, and ten children." Palmer concludes the letter by saying, "I have offered them a dollar's worth of tobacco for every Apache they kill in the future" (Cozzens 2001: 5). This action gained the praise of acting Governor of Arizona Richard C. McCormick in a letter sent to Captain Washburn the Commander of Company E.

The point of these examples is twofold. The first is to show the brutality of the war and the driving factors that would continue to carry them forward for twenty years after the death of Mangas. The second is to highlight how constricted war policy, as defined by Lebovic (2019), can lead commanders to execute extreme measures of violence to maintain the illusion of power; but fail to consider the ramifications of implementing brutalities—like the policies of the previous decade to confine the Apache, the policies to exterminate them failed as well. Cozzens (2001) suggests these failures occurred for three reasons. First, there were too few troops to combat the insurgency by the calculations of (provide an example of the ratio of soldiers to insurgents required for a successful counterinsurgency). Because of these ailing numbers, several posts throughout Apachería could not be maintained, causing them to be abandoned.

Furthermore, in 1867 the contracts of many volunteers were ending, and regular troops from the civil war replaced them. The harsh terrain and years of failed conflict distorted morale, increasing desertion rates among soldiers. The second reason was the bureaucracy of the Military. After the Civil War in 1866, the Army underwent a massive reorganization of commands and troop duty locations splitting Apachería into two different districts. In 1870 the Arizona territory fell under four separate districts of the Department of California, while New Mexico became a district in the Department of Missouri. Finally, these policies failed due to a lack of Army doctrine that taught Soldiers how to fight in mountainous terrain until 1881, when Edward S. Farrow published *Mountain Scouting*. Nor did they have any sense of counterinsurgency operations. Instead, they adopted methods of asymmetrical warfare that attempted to justify genocide. The Army's first counterinsurgency manual was not published until 2009 when General David Petraeus issued *FM 3-24: Counterinsurgency*.

## *Post-Civil War*

In 170 actions from 1866-1870, the Army failed to halt Apache depredations using asymmetric tactics. Instead, these actions created an independent economic system that relied on hostilities. An Army General in 1869 is quoted as saying, "Almost the only paying business the white inhabitants have in Apachería supplies the troops." "Hostilities are therefore kept up to protect inhabitants, most of whom are supported by the hostilities." The calamity of failure to control Apachería pressed the government to resurrect past confinement policies. However, in contrast, formal treaties with the Apache were no longer viable options for removing them. In this case, the use of force would be multiplied to drive them into further despair. "Indian Removal" became the official policy of the U.S. Government in 1830, despite the rebuke by Congressman such as Davy Crockett of Tennessee. The policy sought to protect the natives from white settlers to allow them time to become more "civilized," although most Natives living east of the Mississippi had already been accustomed to colonial settlements. It was from this policy and the Indian Appropriations Act of 1851 that funded official reservations that General Carlton crafted his idea to establish Bosque Redondo near the Pecos River as a pseudo-penal colony in 1863. This place of perdition held over eight thousand malnourished and unclothed Mescalero Apache and Navajo from Kit Carson's campaign. It eventually closed after the news of the inhuman and ungodly conditions reached Washington. Yet, its experimental aim to create a structure of violence would ascertain significant consequences throughout Apachería (Hutton 2016:110-112).

The efforts by the Apache to drive the Americans out of their land seemed achievable. However, by the 1869 railroad, stagecoaches cut their way through the territory carrying an influx of settlers. Cochise said, "The Americans are everywhere, and we live in bad places to shun them."

President Grant's election in the same year hindered the WarDepartments' plans to retake control of Indian Affairs. Accordingly, Congress created the Board of Indian Commissioners, composed of Orthodox Friends who were religious leaders with strategies to pacify Apache on reservations. President Grant's sentiments were evident when he said, "The proper treatment of the original occupants of this land—the Indians—is one deserving of careful study; I will favor any course toward them which tend to their civilization and ultimate citizenship." Under the "Peace Policy," religious men were appointed Indian agents. Likewise, the Army could not enter reservations unless invited by the Indian agent, but all Indians off the reservation would be deemed hostile and face confrontation (Hutton 2016: 131). Conrad (2019) explains the establishment of the reservation system was thought by Americans to be inventive, yet, it was nothing but an echo of their Spanish and Mexican forerunners. Naturally, the settlers of Apachería rejected this cause, as many insisted extermination was the only solution. The Weekly Arizonan in 1870 suggested the government pursue the policies that the Sonoran government had to pay \$200 a scalp to solve the problem of the Apache (Baldwin 1956:33). John B. Townsend, a former Confederate soldier who became known as an "Indian killer" was awarded by the citizens of Prescott in 1871 with a thousand rounds of ammunition and a Henry Rifle that had a silver plate engraved with the words "Honor to the Brave." He claimed to have killed between 98-115 Indians.

In April 1871, Eskiminzin led 150 of his Arivaipa kin to Camp Grant, seeking refuge. Tired of evading the Army, they wanted to live peacefully to cultivate the land. Initially, Lieut. Whitman, the commander of the, directed Eskiminzin's group to Fort Apache. Eskiminzin responded to the commander regarding the White Mountain Apache stating, "That is not our country, neither are they, our people. We are at peace with them but never have mixed with them; our fathers and their fathers before them have lived in these mountains and have raided corn in this valley." Whitman

agreed to provide rations to Eskiminzin and his people. Within a few months, the camp grew to nearly five hundred Apache. However, depredations near Tucson increased, stirring the settlers into a frenzy. A committee of Public Safety was established to raise a militia company whose purpose would be to hunt and kill Eskiminzin's warriors. Uncle Billy, the leader of the militia, met with Colonel Stoneman, the commander of the Army in Arizona, to discuss the ramped depredations by the Apache affecting the population. The meeting intended to persuade the Colonel to disregard President Grant's peace policies and conduct offensive operations against the Apache, but no rational agreement was reached. Uncle Billy reported to the committee, "We can expect nothing more from the Army than has been done. We must depend upon our efforts for its consummation if anything further is expected."

On April 28, 1871, the expedition started to attack the Apache at Camp Grant with one hundred and forty-six militants, forty-two Mexicans, and 92 Papago Indians. In 2003 Chip Colwell published a compellation of Oral Histories and Traditions of the Camp Grant Massacre. One oral tradition that powerfully conveys that horrific day comes from Sally Ewing Dosela, who died on Christmas day 1996. Before her passing, she gave her account of the massacre to Mr. Paul R. Machula.

*"Men from Tucson killed many people, some of them members of my family, at al waipa [Old Camp Grant] ... the sisters of Uzbah were there. She was visiting her aunt. The people wanted to have a 'sing,' and so almost all the men had left their families to hunt for meat in the mountains. At about four in the morning, Uzbah's sister heard some people come into the camp. She believed they were bringing water into the camp. But, 'Why so many?' she thought."*

*"Then, she heard the guns. She also heard the people start crying, and the children began howling. It went on for a long time. Uzbah's sister ran away from there. She found a horse. She held on to that horse with one of her legs over its neck so she couldn't be seen. Then, she went up a trail into a hollow area [box canyon on Arivaipa Creek]. She hid there. Later she came down and found her cousins and aunt lying all around. All were dead. Blankets were wrapped around the people, and they buried them there."*

One hundred and eight Arivaipas were slaughtered that day. Only eight were men. Twenty-nine children were "spared" taken by Tucson citizens or sold by the Papagos into Sonora as enslaved people. Captain John G. Bourke writes: "The incident, one of the saddest and most terrible in our annals, is one over which I would gladly draw the veil." General Schofield called this incident "no less barbarous than those which characterize the Apache." According to Charles (2019), barbarism is the lack of reasonable conversation according to rational laws. By this definition, a society becomes uncivilized when people cease having dialogue when they fail or cannot have open and sensible discussions about human affairs. It's evident in the Case of the Camp Grant massacre that civility made way for madness, unveiling the identity of the true barbarian. By order of President Grant, those who participated in the murders were brought to trial. After fifteen minutes, they were found "not guilty." No Arizona judge or jury would convict a white man for killing an Apache (Lockwood 1939:181).

In the wake of the Camp Grant massacre, a new strategy to gain the hegemony of Apachería was necessary. Until then, the United States engaged in an asymmetric war that protracted into chaos. They took the risk against the Apache to fight them in their terrain and employed extreme measures that increased collateral damage and killed innocent civilians. Stahel (2002) argues that

in asymmetric war, the superior power attempts to limit its operations to keep costs low. In contrast, the low power seeks to inflict the highest possible costs of resources on the adversary force. Because of this, it was unclear to determine who was the lesser power in Apacheia until Brigadier General George Crook took command of operations in July 1871. Crook agreed with the population that the Apache must be smashed into submission to achieve peace. However, engaging in asymmetric operations was no longer viable as the superior power. Instead, General Crook implemented a dissymmetric approach. His campaign against the Apache used money and rations to corrupt the enemy, Recruited Apache scouts as allies, and implemented mountain scouting and mobile logistical trains. Having successfully tested his new Army in the field, Crook devised a campaign strategy to drive all hostiles into their reservation. In 1871 Sherman allowed Crook to use any method necessary to bring the Apache into their assigned reservations giving them until the middle of February 1872. Any Apache who did not report would be branded as "hostiles" and pursued by troops. However, like Carlton's General orders, General Crook's vision didn't transpire as planned for two reasons. First, because the policies of the Indian commissioners began to materialize, and secondly, President Grant tasked Brig. General Oliver O. Howard to investigate the Camp Grant massacre and ensure plans for peace superseded plans for war (Cozzens 2001:11).

The U.S. stopped negotiating formal treaties with the Apache after 1871. Instead, they executed their power to create reservations through presidential executive actions. This made it easier to set aside reservation lands and dissolve them. With 70,000 dollars (1.8 million today), Vincent Colyer was tasked with collecting the Apache in Arizona and New Mexico upon reservations. Colyer found initial success at Camp Apache with the White Mountain Apache and designated land for them to become their place of confinement. At Camp Grant, he confirmed the existing reservation occupied by the Arivaipa. At Camp Verde, Colyer agreed with the Yavapai to

allow them to cultivate the lands along the Verde River. However, Crook despised "Vincent the Good," as he called him. The efforts made by Colyer aided Crook's 1872 winter campaign against the Western Apache and Yavapai because the reservations provided the Army with a more clearly defined Area of Operations (AO). This campaign was devised to be short, sharp, and decisive to overwhelm these native groups and make a devastating statement of U.S. power that the Indians would never again dare to entertain military autonomy (Lahti 2017:177). The campaign focused on striking outlying strongholds and forcing the Apache and Yavapai into the reservations.

Crook's tasks to subordinate units were simple. Do not kill women and children; take prisoners upon surrender; convert prisoners to scouts; hunt and kill anyone who does not submit by any means possible; and never abandon the trail (Cozzens 2001; Lahti 2017). The Battle of Salt River Cave exemplified this notion. In December 1872, a force of 250 men, of whom 100 were O'odham fighters and 30 San Carlos and Tonto Apache, hit the Kwevkepaya Yavapai/Tonto Apache hiding location in a shallow cave. Mothers covered their children with their bodies as bullets ricocheted off the cave walls. The soldiers reported hearing screams and moans. When the cave went silent and the smoke cleared, seventy-six Yavapais were killed (Cozzens 2001; Hutton 2016; Lahti 2017). Despite the massacre at the cave, many Apache and Yavapai continued to resist Crook. However, the events at Turret Peak in March 1873 proved to be an overwhelming slaughter on a site thought to be impenetrable. Reports from Mickey Free, an Apache scout and the boy at the center of the Bascom Affair (1861), illustrated the engagement detailing the raid as swift and well-established to ensure the destruction of everyone on the peak, some of whom jumped to their deaths. Thirty-three warriors were killed, and the scouts took thirteen women and children.

Within weeks 1,200 Yavapais and Tonto Apaches surrendered at Camp Verde; by autumn, that number expanded to six thousand. Likewise, Delshay, the Tonto Chief at the heart of the

resistance in the Mogollon Rim, surrendered and Camp Apache and was later moved to Camp Verde with his people. On April 9, 1873, Crook issued General Order 14, ending his campaign. In preparation for a battle with Sioux, Crook was transferred by General Sheridan to the Department of the Platte. Lahti (2017) explained Crook's campaign as a highly one-sided killing expedition that echoed the notes of extermination." Two years later, 1,476 Yavapai journeyed 180 miles on the "Trail of Tears," as it became known, from their reservation on the Verde River to the San Carlos, reigniting conflict in the region. According to Roberts (1993), by 1873, General Crook believed he had solved the Apache Problem and ended the war that had been waged for 12 years.

Colyer's undertaking to bring peace to Apachería proved marginal because he could only make a fragmentary peace with only a few Apache in Arizona and New Mexico. Moreover, he failed to secure it with Cochise and the Chiricahua. In October 1872, Cochise successfully negotiated with General Howard to maintain a reservation on his people's lands. In return, he promised to protect Apache Pass from raids. After a decade of violence, it was time for peace. After the council, he lamented why he went to war, *"We were once a large people covering these mountains; we lived well; we were at peace," he said as he pointed across the horizon. "One day, my best friend Mangas was seized by an officer of the white men and treacherously killed. The worst place of all is Apache Pass. There, five Indians, one my brother, were murdered. Their bodies were hung up and kept there till they were skeletons."* Until this point in the war, Cochise band, his Chokonens, continued, for the most part, to keep the trail to Tucson secure but continued to raid Mexico. Under the supervision of their agent Tom Jeffords, Cochise and his people kept their promises to protect the pass and only raided in Mexico. However, complaints of lax discipline, consistent migration of Indians from other reservations, and raids into Mexico threatened their autonomy. On April 7, 1876, two Apache from the Chiricahua reservation

drunkenly murdered two ranchers at the Sulphur Springs Station. This incident presented the opportunity to punish all the reservation residents and displace the Chiricahua again. John Clum immediately took to the field to remove the residents of the Chiricahua reservation from the San Carlos. He arrived with a regiment of cavalry and ten companies of Indian scouts (Western Apache), and more than five hundred Native volunteers. However, many reservation residents fled to Mexico as Cochise had done after the Battle of Apache Pass. Others hid in the nearby mountains to maintain their sovereignty (Conrad 2019; Cozzens 2001; Hutton 2016; Lockwood 1938). Clum left the Chiricahua reservation with three hundred and twenty-five Apache and returned to San Carlos. According to Lockwood (1938), removing the Chiricahua Apaches from their reservation was the crowning folly of the Indian Bureau. Not only did the Chiricahua dislike the region of San Carlos, but it was overpopulated with hostile bands of Apache held there against their will. They knew this action was taken not because of their collective action but because of the greed of the Euro-Americans to find an excuse to take their land.

Ultimately, the reservation closures and consolidation of the Apache to the San Carlos resulted from Mexico's political pressure to stop Apache from raiding across the border and civilian influence. These actions constrained the authorities of the Indian Commission, and control of the reservations was once again placed under civilian oversight. General Crook denounces this decision. He stated, "As soon as the Indians became harmless, the Indian agents, who had sought cover before, now came out as brave as sheep, and took charge of the agencies, and concentrated their game of plunder." Under new authority, San Carlos became a destitute place that embodied hell on earth. Apache James Kaywaykla said it was a "Hellhole," "a place of death." There were no game and non-edible plants. The only things that survived were cacti, insects, and rattlesnakes. Because of the harsh conditions, corruption and infighting among Apache breakouts became the

primary means to openly defy and resist U.S. authority in Apachería and maintain agency in their lives, even at the cost of death. Between 1874-1885 breakouts from the reservations were frequent. Most notable is the escape led by Geronimo from Turkey Creek in 1885, which took the army on a long and drawn-out campaign into Mexico. While this example may be the most famous, it was Victorio's continued defiance of imperial authority that scholars suggest to be the first instance of mass flight from San Carlos that set a precedent for others to follow (Conrad 2019; Cozzens 2001; Hutton 2016; Thrapp 1969).

Not long after the closing of the Chiricahua reservation, the Arizona government turned its attention to the Ojo Caliente, the home of the Victorio and the Mimbres Apache. Since 1872 Victorio pleaded with U.S. officials on the effects of the reservation. He explained that his people had disappeared, and few babies had been born since the institution's establishment. However, his pleas fell on deaf ears. Over time, this reservation had become known to the Department of Interior as a place for Apache, such as Geronimo, to use as a refugee to rest and refit before conducting depredations against Euro-American settlers and Mexicans. Clum was responsible for closing the reservation and bringing the Mimbres to San Carlos. In 1877 he, along with 122 Indian police, encircled Geronimo at the reservation and took him captive. He, 343 Mimbres Apache, including Victorio, and 110 Chiricahua marched to San Carlos. After a few months, nearly all who arrived at the San Carlos broke out and fled south toward Mexico, forcing the Army to pursue and engage them in a series of skirmishes. According to Conrad (2019), this was the first mass flight of the Southern Apache from San Carlos. After losing 56 warriors, Victorio surrendered to the Army. Reluctant to returning them to the San Carlos, General Hatch allowed them to return to Ojo Caliente as long as they were "good Indians." However, Victorio's success was short-lived. In 1878 the Army returned to Ojo Caliente and demanded Victorio and his people return to San

Carlos. Victorio allowed his women and children to return, but he and his men defied the Army and left for the Mountains (Thrapp 1967:177-179). Throughout this time, Victorio and his band raided with impunity across western and southern New Mexico. In 1879 Victorio and his men attempted to make peace with the Indian Agents at the Mescalero reservation. However, talks failed again when Victorio's people were not provided the rations promised, and rumors swirled about his impending arrests (Connrad 2019; Cozzens 2001; Hutton 2016; Thrapp 1969). Victorio vowed never to return to a reservation. Instead, he chose war out of necessity. Victorio spent months campaigning in Mexico and the U.S., successfully raiding and subverting the nearly 1,000 soldiers sent to capture or kill him. In 1880 at Tres Castillos, Victorio was killed by the Mexican Army in battle. After he passed, his sister Lozen, a prominent medicine woman and warrior, wept with her people.

According to Ball (1972), Lozen stepped back before the flickering fire and raised her cupped hands to the starlit sky with the palms up and sang:

*Overall, in this world  
Usen has Power  
Sometimes He shares it  
With those of this earth.  
This Power He has given me  
For the benefit of my people.  
This Power is good.  
It is good, as He is good.  
This Power I may use  
For the good of my people.*

### Chapter 3: Justifiable War

Until this point, the examination of the Apache War has focused mainly on the diaspora they faced at the hands of colonial injustice. The use of asymmetric war undoubtedly extended U.S. Policy to the brink of relinquishing imperial conquest in Apachería, like the Spanish and Mexicans before them. For the Americans, this war was deemed justifiable to maintain ideals based on manifest destiny, racial superiority, and Christianity (Conrad 2019; Isenberg 2017; Lahti 2017). In contrast, the Apache resisted U.S. colonial rule by using methods of asymmetric war to conserve autonomy, land, and the right to exist. The Apache Wars and its preceding history have lent a pertinent description to a series of atrocious and brutal policies that colonial authority fixated on, expanded upon, and became constricted when applied. Moreover, it illustrates the pain and hardships experienced by the Apache and Yavapai.

At its inception, just war theory derives from catholic moral theology in the Middle Ages. Its writings analyze the justification of Christian states and societies to participate in and go to war. However, contemporary just war theorists such as Weiner (2017) propose modifications and studies that expand the boundaries of wars between states to wars of oppression against imperial and colonial power, i.e., the Apache Wars. However, the original ideals of just war remain sound. They are based on two moral qualifications, *jus ad bellum* and *jus in bello*—the before and after entry into the war. *Jus ad bellum* concerns itself with the rationalization to go to war, while the latter focuses on how war is executed. Weiner (2017) suggests that separating the two means an unjust war of aggression can be fought by just means, and a just war of self-defense can be fought unjustly. This is because combatants fight primarily out of a sense of loyalty and accept their side's representations about the justice of its cause. As Walzer (2006) explains, combatants face each other as equals possessing the moral right to kill during war. Subsequently, just war extends

beyond the realm of war and peace. In parallel, war is associated with evil and vial acts that would be deemed criminal in a time of peace, where peace is relative to the moralities of culture and human nature. Neither can be black and white because they are interwoven with each other and pose changing paradigms. Therefore, it is necessary to utilize a candid evaluation of the Apache resistance as it applies to the principles of a *jus ad bellum* and *jus in bello*.

According to the just war tradition, an entity seeking the establishment of a justifiable war must have the proper authority to do so. St. Thomas Aquinas argues that authority for war lies within the population and is made to act in the commonwealth's interest. He further suggests that war without sovereign authority will result in chaos. Based on this definition, the United States maintains the authority to enter a war based on a three-tier government that executes “the will of the people.” However, that authority was ineffective in the Apache wars because the U.S. lacked the appropriate power to maintain safety, security, and government in their newly acquired territories.

Moreover, the begrudging respect the United States held for the Apache most likely extended from their inability to graft absolute power and authority into Apachería. Therefore, to save their appearance on the international level in the face of defiance, the colonial power contrived policies based on an ambiguous phenomenon of “Manifest destiny” and racial evangelistic views that intertwined a war for conquest and expansion with a crusade. Morgan’s (1877) views on the passage of culture through the stages of “savagery,” “barbarism,” and “civilization” evokes a stark correlation of the moral justification of pacifying Apachería. Undoubtedly, the U.S. perspective of Apache culture clinched to these ideologies and proliferated these archetypes to establish a psychosocial campaign that created the “savage warrior” who thirsts for blood. Moreover, it placated colonial epitomes to exploit fears and emotions on the landscape and incited settler

ignorance of Apache groups (Low 2001). Like the Spanish and Mexicans, the U.S. Army and xenophobic settlers lied, cheated, stole, and murdered Apache, causing a cyclical pattern of warpaths, raids, and retribution killings (Cozzens 2001; Terrell 1972; Worcester 1979). Drawing from Foucault (1975), American power in Apachería sought the right to seize Apache memory, bodies, and life to suppress them from their natural state of being. Thus, the incorporation of unjust policies and permanent confinement, like the Spanish and Mexicans before them, was a way to expose an entire population to death, guaranteeing their continued expansion and existence on the landscape. On this basis, the Apache were induced into a panoptic state and fell under a disposition of consciousness and enduring visibility that sought to assure the automatic functioning of American supremacy.

Father Benavides made one of the earliest mentions of the Apache as a nation in a report of Coronado's expedition to the King of Spain in 1630. In the information, the priest speaks of them as "the huge Apache nation." He continues in admiration of their superiority over other indigenous tribes, such as the Pueblo, in warfare (Lockwood 1938:10). Likewise, General Oliver Howard, in his report to the War Department in 1874, writes, "These men were simple and nomadic —yes—but they formed a nation, with laws, legends, and a history." The importance of these examples is to depict how imperial powers attempted to justify their actions on the premise that the Apache operated as a united nation in opposition to colonial rule. Under this pretense, their actions in war could be absolved of sin by maintaining a moral justification of immoral actions during the conflict, including capital punishment, massacre, and the indiscriminate killing of women and children.

Walzer (1977) describes wars based on ethnic cleansing, territorial expansion, and economic gain as morally unjustifiable for whoever begins them. Therefore, the oppressed harness

the moral justification to rouse a justifiable resistance equivalent to the force imposed upon them. Fanon (1967) provides an acute understanding of opposition to colonial power experienced during French-occupied Algeria. He states that culture must be fought between the occupant and the occupying. When people undertake an armed or political struggle against relentless colonialism, the significance of tradition changes; in this regard, the Algerian insurgency fought a morally just action to regain their national identity stripped away by colonialist occupants. Undoubtedly, the Apache use of asymmetric war can be viewed similarly. Their use of force was morally urgent to oppose U.S. imperial authority because critical values were at stake: territory, autonomy, communal liberty, and human life meeting the principles of *jus ad bellum*, including proper authority, cause, and last resort (Walzer 2006:110).

While just war traditionalists may argue that the Apache was not part of a state or nation and cannot justifiably have the authority to go to war, this is false to some degree. The power of the Apache waging just wars against the United States requires slightly skewed stipulations for the canon of just war tradition based on contemporary theory to apply just war to asymmetric warfare. Weiner (2017) suggests that in asymmetrical warfare, the proper authority to go to war lies with a community or political society entitled to seek self-governance. In turn, it may claim the right to have recourse to political violence based on motivations to repel a threat to their sovereignty. On this basis, the Apache leaders could enter their bands into periods of war even as non-state actors. This premise is essential to understand because, culturally, the Apache are regarded as individuals who don't adhere to formal singular authority. However, throughout the 19<sup>th</sup> century, several Apache, such as Mangas Coloradas, Cochise, Victorio, and Geronimo, rose to prominence as great warriors with significant influence, respect, and authority over their bands. Army generals often negotiate peace terms with these individuals or focus their military efforts on capturing or killing

them. This authority allowed these Apache leaders to shape internal politics, lead raiding parties, and decide where to reside and when to take the warpath. Thus, their decisions were based on securing the common good of all in their communities (Hall and Charles 2019: 1).

Moreover, Fabre (2008) suggests that non-state actors are regarded as states because they defend “state values” such as national sovereignty or territorial integrity from, typically, foreign colonial powers. The law of war and just war tradition confers legitimacy on a *levée en mass* of a people against its foreign conqueror.

The Apaches decision to enter into war with the U.S. is justifiable. But what about their actions during the war, *Jus in bellum*? On the surface, it may seem that the Apaches actions of raiding and killing were morally unjust. They used guerilla tactics, torture, and in some ways, terroristic activities. However, the argument for why this was done aligns with Walzer’s supreme emergency concept. According to Walzer, this concept advocates that existential threat to the state permits it to throw out the rules of *in bello*. While the Apache didn’t see themselves as a state, the colonial powers did. Driven by their desire to conquer with moral justification, they inadvertently extended the state's ability to the Apache, as mentioned above. Therefore, the Apache's use of asymmetric warfare, including targeting and killing civilians and military combatants, can be morally justifiable because the U.S. Army and settlers sought to eliminate their being, which Walzer (2000) says is “evil objectified in the World.”

Thus, the Apaches right to use brutality such as *bista? ha dogiž* [‘his head top cut off’] or scalping and mutilation are acceptable means to a necessary end that were no different than scalping hunting policies emplaced by colonists throughout the war. Contrary to popular belief scalping was, in fact, rarely done. For example, in Western Apache culture Grenville Goodwin notes that the decision to scalp rested solely with an individual warrior who sought to gain

‘enemies-against power.’ This supernatural power derived from the Killer of Monsters was the most crucial for war. After an individual was scalped, the Apache stabbed the body three times and then danced with the scalp on a spear as part of a ceremony. Goodwin noted that this practice also weakened their enemies' race (Basso, 1971). Roberts (1993) writes that from the Apache point of view, what seemed to whites the gruesome torment of innocent victims was a proper and necessary procedure for dealing with evil loosed in the world. Moreover, revenge for an Apache was not a lawless rampage of individual will but a sacred social duty. It was even performed by Apache women, often in a much more grotesque manner.

## Chapter 4: Physical Evidence of Apache Resistance

The archaeological study of warfare seeks to examine the long-term evolution of societies and regions shaped by armed conflict, to understand the causes and conditions that make it likely, the way it is practiced, and the enduring effects on the societies that engage in it (Allen and Arkush 2006; 1; Solometo 2006; 25). For my discussion, I suggest that this archaeological discipline manifests physical evidence relevant to just war tradition and its primary principles of discussion *jus ad bellum* and *jus in bello*. From an anthropological perspective, war is the armed conflict between nations, states, and groups that is a legitimate collective action preplanned and organized to inflict unprejudiced killing (Kelly 2000; LeBlanc 1999; Otterbein 2009). Meggit (1977) adds that war is a period of armed hostility where groups maintain a constant tactical readiness to apply force in opposition. In the context of the Apache wars, this includes establishing defensive positions such as Army Forts and Apache Strongholds. Often these positions were used to conduct offensive operations in the form of raids and ambushes. In the struggle for Apachería, most actions that occurred are considered skirmishes or mobile encounters between forces who never fully become engaged. However, on rare occasions, “battles” which sought the destruction of the enemy morally and decisively occurred (Carmon 2005: 3).

### *Battlefield Archaeology*

The first work attributed to conflict archaeology began in the middle of the 20th century when Portugal's military government sought to investigate the battle of Aljubarotta, AD 1325 (Carman 2005; Conner and Scott 1998; Scott and McFeaters 2010). It found broader support among the archaeological community after Dr. Douglas D. Scott interpreted the Battle of Little

Big Horn in 1984. His application of archaeological methods combined with metal detecting uncovered material evidence that vivified the significant moral and absolute truths of the hellish realities of war. This examination prompted southwestern historians and archaeologists to assess several vital battles from the Apache Wars. For example, Larry Ludwig and John Stute's assessment of The Battle of K-H Butte determined critical aspects of late 19<sup>th</sup> century U.S. Army and Apache movement and maneuvers. John Welch, Chip Colwell, and Mark Altaha's reenactment of the Battle of Cibecue ascertained a decolonization approach that sought to determine the archaeological boundaries of the battle site, documented rancheria or refugee sites occupied by Apache in the battle's aftermath, developed a database of Apache oral histories and traditions that related to the battle; explored the communities interests in preserving the battlefield for public interpretation; and created public documents to nominate the site to the National Register of Historic Places. Larry Ludwig's assessment of the Battle of Apache Pass provides material evidence that meets five principles of unified land operations relative to 19<sup>th</sup>-century warfare as defined in the U.S. Army Publishing Directorate (ADP) 3-0. These include mission command, a developed situation through action, combined arms, security, and the ability to create multiple dilemmas for the enemy.

However, several conditions make it difficult to identify critical engagement areas and the material culture of the Apache Wars. Scott and McFeaters (2010) provide ample reasons for these privations about the larger discourse of battlefield archaeology that applies to the Apache wars. First, the wars were fought throughout vast landscapes ranging from high mountain peaks covered in pine forests to low-lying deserts with flat mesas rising above flat canyons. Temperature-wise, Apachería could vary between below freezing in the winter to over 100°F in the summer (Greene 1881; Lockwood 1938; Opler 1940; Goodwin 1971; Worcester 1979; Watt 2012; Conrad 2019).

Under these conditions, actions usually occurred in ephemeral locations not typically recorded in the historical record. Therefore, decisively locating the extent of these areas is extremely difficult. The second roadblock to identifying conflict areas is the absence of physical evidence in a skirmish or battlefield. During the wars, it became typical for the Army and Apache to clear the engagement area of any material remains, including personal belonging, weapons, and ammunition. Once the locations of these actions were known, they became subjected to looting and artifact hunting, leaving little evidence remaining to add to the record. Lastly, observing Apache rancherias or strongholds remains extremely difficult. However, in 1998 Lincoln National Forest archeologists Chris Adams identified Dark Canyon Rancheria. This campsite was the location of a skirmish between 1862 and 1866 when the Mescalero Apaches camp was attacked by either the New Mexico or California volunteers. Adams (2000) suggests the findings at the camp were typical of domestic Apache camps. Items such as metal points, barrel hoop blanks, knives, tinklers, brass wire bracelets, cook wear, and horse tack were found in addition to the military assemblage. Other material evidence of Apache lifeways exists throughout Apachería. Still, most of it is attributed to more sedentary bands of the Western Apache, whose traditional lifeways were bifurcated between cultivating the land and hunting and gathering (Ferg 1987: 1-3). Nonetheless, the battlefield archaeology of the Apache wars provides a holistic analysis of how asymmetrical warfare shapes spatial layout, group dynamics, tactics and techniques, and human behaviors throughout the conflict.

As I've demonstrated, the Apache Wars were an inevitable tragedy of American imperial ambition that lacked moral and ethical justification for pursuing expansion. Since the turn of the twentieth century, many scholars and military enthusiasts have repeatedly attempted to recant the history of the wars, exhausting the existing documentation and perspectives of soldiers and settlers

(Welch et al. 2005:136). However, lacking in these studies is the incorporation of material evidence, specifically assemblages that unfold the depth of warfare that shaped Apachería. Thus, it is essential to not only consider how the Apache resisted U.S. colonial occupation from a historical context but also analyze the remnants of the physical evidence provided by my investigation of The Battle of Big Dry Wash, which is considered by scholars such as Harris (1938) to be the Apache's last stand.

### *Battle of Big Dry Wash*

The Battle of Big Dry Wash was fought on 17 July 1882, approximately four miles north of General Springs along East Clear Creek Canyon in the present-day Coconino National Forest. This battle was fought between 60 Apache Warriors and roughly 15 U.S. Army Troops from five Arizona posts totaling nearly 400 U.S. Soldiers, lasting three hours. As soldier and historian Will C. Barnes claimed, the battle of Big Dry Wash was “the Apache's last stand in Arizona.” Thus, concluding arguably the Army's longest war.

The events of 17 July 1882 found their beginnings a year earlier at the Battle of Cibecue Creek. The killing of a U.S. Army Scout and medicine man named Nockaydelklinne under General Carr's orders brought forth a series of retributive acts by several bands of Apache, culminating in an attack on the San Carlos reservation (Kessel 1974:124; Meise 1998:24). Several months later, Natiotish, a member of the White Mountain Apache and a former Army Scout, along with his followers, many of whom were present at Cibecue creek, attempted to start an uprising by demanding that warriors from the San Carlos take the warpath. However, the warriors refused, sparking Natiotish and his men to kill agents at the reservation, including J.C. “Cibecue Charley” Colvig. Following the San Carlos reservation hostilities, Natiotish and his band, including several

captured women and children, began evasive maneuvers through central AZ, raiding several homesteads. (Meise 1998:25; Barnes 1931:3).

Following these events, fifteen U.S. Army Troops from five Army posts in Arizona were dispatched by Fort Whipple. For several days these Soldiers followed the trail of the Apache force through what Barnes (1931) calls the most broken terrain in the United States. Captain Adna R. Chaffee from Camp McDowell was the first commander to cut the trail of the Apache above Payson on the East Verde River. On the night of 16 July 1882, Captain Chaffee and Al Sieber joined Maj. Andrew W. Evans, the commander of the deployed Army units, to discuss the progress of the pursuit. Capt. Chaffee and Sieber informed Maj. Evans that the Apache were near and hostilities were likely. On the morning of 17 July 1882, Capt. Chaffee was joined by Lieut. Converse's Troop, then Lieut. Morgan and his company of Apache Scouts. Following Maj. Evans orders Capt. Chaffee proceeded the chase through the rim of Tunnel Hill, passing the Apache's campsite from the night before located at General Springs (Barnes, 1931:38). As Capt. Chaffee's column continued their forward progress; Sieber and his Tonto scouts identified Natiotish's fortified fighting positions across the canyon. Chaffee dismounted his Troop and established support by fire position (SBF) along the ridgeline trading volleys of 45/70 with the Apache. Maj. Evans quickly rode up to the fight. Anticipating his relief of command, Capt. Chaffee prepared to turn the battle over to his superior officer—however, Maj. Evans passed command and control of the battle to Capt. Chaffee deployed his Troops as he saw fit (Barnes 1931:41; Meise 1998:37). The remaining battle details will be discussed below.

### *Intelligence Preparation of the Archaeological Battlefield*

The incorporation of modern military operations analysis tools in conflict archaeology has become critical to understanding how battles were shaped. A popular concept that has gained

widespread use throughout the field is terrain analysis or KOCOAs, which has since been renamed OAKOC: observation and lots of fire, avenues of approach, key terrain, obstacles, and cover and concealment (Scott and McFeaters 2010; Bleed and Scott 2011). While this method is acceptable to describe the viewshed of a battle, it is regarded as a single entity within a larger analytical lens used by U.S. Army Military Intelligence to systematically process and analyze mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations. This analytical method is called Intelligence Preparation of the Battlefield (IPB). For its application in archaeology, I call it Intelligence Preparation of the Archaeological Battlefield (IPAB). It serves as a four-step framework from which the functional analysis of the Battle of Big Dry Wash is derived. The difference is that traditional IPB focuses on events that haven't occurred yet, while IPAB uses historical analysis and archaeological methodologies to locate, confirm, or deny battlefield information.

*IPAB Step 1: Define the Archaeological Operational Environment.*

The operational environment (OE) of the Battle of Big Dry Wash differed significantly from that of the Battle of Apache Pass. In 1862 the dynamics of U.S. colonial occupation were still in their infancy and lacked the means to exert its authority on the landscape. Moreover, the outbreak of the Civil War reduced the population of troops and settlers in the new territory. Thus, the Chiricahua could maintain significant autonomy from colonial authority and exert their power militarily and diplomatically from within their environment. Moreover, they could continue cross-border operations into Mexico to resupply or seek refuge. By 1882 The Battle of Big Dry Wash occurred within a multifarious OE. This environment was based on twenty years of recurring colonial aggression and various forms of Apache resistance that fashioned the employment of

combat capabilities and affected the decisions of each combatant commander. By 1882 the “program of removal” initiated by the Department of the Interior had confined the Western Apache and Chiricahua Apache together at the San Carlos reservation, intensifying the already horrible living conditions. Disease, hunger, profiteering, and feuds reflected daily life meant to keep the Apache in a docile state. To ensure this, a strict prisoner-of-war model was established using a surveillance method enforced by the Apache police, composed of ex-Apache enlistees (Lahti 2017:181). In addition, reservation agents assigned tags to males capable of bearing arms that indicated the band to which they belonged and designated their number within each round (Conrad 2019; Lahti 2017). One Chiricahua was recorded saying that San Carlos was a place of death where few people could survive beyond the summer (Lahti 2017:186).

Apache resistance during this time comprised predominantly of breakouts. However, a revitalization movement also occurred. Liebmann (2008) states that these movements originate from cultural “distortion,” environmental stress, or rapidly shifting power relations. They are frequently inaugurated by a charismatic leader who shares a revelation, preaches a message of hope, and promises to improve lives. Such was the case with Noch-ay-del-klinne, the chief protagonist of the Battle of Cibecue Creek. In August of 1881, rumors circulated throughout Apachería of a medicine man who could bring to life dead Apache chiefs if all the colonists were removed from Apache land. These rumors stirred Army leadership into a frenzy about a possible Apache revolt. Thus, they decided to arrest Noch-ay-del-klinne and have him taken to Fort Apache. However, they were met at Cibecue Creek by several Western and Chiricahua Apache warriors. According to Tom Friday, the son of Dead Shot Sergeant of the Scouts, Captain Hentig drug Noch-ay-del-klinne by his hair, cursed at him profusely and shot him in the back of the head. This angered the scouts, and they turned their rifles on soldiers, and a battle ensued. In early 1882 three

scouts, including Dead Shot, were hanged at Fort Grant. As a result of the murder of Noch-ay-del-klinne's and the hanging of the scouts, raiding intensified in the region.

In April 1882, a Chiricahua raiding party struck the San Carlos reservation with the aid of Natiotish and killed Albert D. Sterling, chief of reservation police. Loco and 300 of his followers joined the raiding party. They fled the reservation for the safety of Mexico (Meise 1998:24). Under the leadership of Natiotish, many of the Apache who fought at Cibecue creek remained outside of confinement for the next several months. During June and July, they attempted to spark an uprising at the reservation but failed to garner any enthusiasm for war from other Western Apache. Instead, they killed the Chief of Scouts, J.C. "Cibecue Charley" Colvig, and a few other police (Barnes 1938, Meise 1998). Before departing the reservation Natiotish and his warriors captured weapons and ammunition, along with a few women and children. They cut the telegraph wire, delaying the incident's news for a few hours, and began traveling northwest toward the Mogollon Rim.

Within a day of the incident, the Tucson *Arizona Daily Star* of July 12, 1882, wrote that renegade Apache rallied 500 to 600 well-armed Indians and was ready to take the warpath. Follow-up reporting significantly reduced that number to between 40-60 warriors. Nonetheless, the exaggerated claims ignited fervor among the populace to take up arms against them and prepare for war.

From the reservation, the Apache conducted a series of raids throughout Pleasant Valley, significantly impacting the settlers within the region. About a dozen settlers from Globe formed a militia under the Globe Rangers and set off to warn the population and destroy the Apache band. However, like other militias organized to combat the Apache, they were unsuccessful (Cozzens 2001:279). The Rangers arrived at the Middleton Ranch and found no Apache on site. Natiotish's band raided them as they rested, stealing their horses and rifles. The following day the Apache

band raided the small mining community of McMillenville. They were met by a small squad of residents who formed a skirmish line but could not prevent the Apache from capturing supplies. Following this engagement with the locals, the Apache continued raiding ranches throughout the valley, gathering horses and supplies.

Following the skirmish at McMillenville, General Orlando B. Wilcox, the commander of the Army in Arizona, ordered out thirteen troops of cavalry consisting of 350 men, two companies of Apache Scouts, and 150 fully packed mules with packers from Forts McDowell, Apache, Whipple, Thomas, and Verde. This was the most significant organized Army action since General Crook's departure.

The Area of Operations (AO), which defines the battlefield perimeter, is roughly 256 acres and is about 6500 feet above sea level (Figure 1). The Navajo territory lay north of the battlefield, behind the Little Colorado River. Although the Apache and Navajo had considerable tensions towards each other, it wasn't uncommon for Apache to raid, trade and live amongst them (Matthew, 1994). Palmer Valor, a member of the White Mountain Apache, described to Grenville Goodwin in 1932 how he used to raid in Mexico but sometimes went over towards the Mogollon Mountain, where he fought the Navajo and took their sheep and horses (Basso 1971). To the east of the battlefield was Diablo Canyon. Within this area lies a series of caves containing material evidence of Apache use. General Springs is south of the battlefield, about five miles away. This was a critical location that allowed the Army to acquire the trail of the Apache the night before the battle. Here, Captain Chaffee reported that forty-two Apache had departed the camp with eighty to one hundred head of livestock. Likewise, packer C.P. Wingfield observed that the Apache had built a large fire and killed two mules and a horse the previous night (Meise 1998:35). To the west

of the battlefield was a continuation of desolate land and restrictive terrain that would be problematic to traverse.

The terrain of the battlefield is unforgiving and difficult to traverse. It has a large pine forest, sharp and rigged rocks, and rolling hills. Col. Morgan described it in a letter as a beautiful pine forest almost free from underbrush and carpet of pine needles. Three distinctive terrain features within the AO divide the battlefield into separate engagement areas. The first and most considerable of these is the 1,000 ft high sandstone walls of East Clear Creek Canyon that runs east to west, bisecting the battlefield into the north and south side. The second feature is referred to as Morgan's arroyo. This arroyo sits between two ridge lines on the north side of the battle. It is approximately 800m long by 40m wide, with walls on both sides that stand about 300ft. The final feature is a ravine that bisects the north side of the battlefield from east to west. It is about 400m long by 50m wide and intersects Morgan's arroyo. At its highest, the walls of this arroyo can reach 75ft, and at its lowest, 6ft.

The weather during the summer can be harsh and unpredictable. Temperatures during this time can reach over 90°F, causing significant exhaustion, and may have been a factor in slowing the pace of movement for both the Apache and Army. Likewise, rainfall is limited in the region, drying washes and creeks limiting water availability. Moreover, the lack of water opens mobility corridors that may not usually be traversed. As evident in the battle, the dry wash enabled the Apache to cross the canyon and establish their camp and ambush positions. It also provided the Troopers with two avenues of approach (AOAs) that allowed them to engage the Apache on the north side of the battlefield. Furthermore, monsoons are expected during the summer months. These storms can rapidly develop throughout the region, bringing heavy rain, hail, and flooding.



FIGURE 1. Area of Operations

## *IPAB Step 2: Environmental Effects of the Battle*

Environmental effects formulate how combatant leadership perceives the battlefield and plays a substantial role in the decisions making processes that influences engagement. Often, success results from their ability to quickly choose and exploit terrain, weather, and civil considerations to best support the mission during decisive, shaping, and sustaining operations (ATP 2-01.3). At the Battle of Big Dry Wash, the ability of both Captain Chaffee and Natiotish's warriors to exploit these effects was critical to the outcome of the battle. Of the factors necessary for victory, their aptitude to process the terrain and understand the threat proved most influential. While they didn't have formulated doctrine to explain a step-by-step procedure of analyzing these subtleties like contempered militaries, it is highly likely, based on experience, that both commanders intuitively evaluated the threat they posed to each other's forces and the steps of terrain analysis.

In Asymmetrical warfare, the threat is based on an array of factors seeking to disrupt the enemy's weakest points and extend their political and populace will fight (Stahel 2002; 436). Nearly 45 years of war and the implementation of the reservation system were effective strategies implemented by the U.S. in silencing the will of most Apache to continue fighting. For example, Sam Kenoi, a boy at the San Carlos reservation, recalled people saying, "Geronimo is out again," in frustration because they knew the consequences of his actions would be geared toward them (Conrad 19: 209). However, from the perspective of the Apache, who operated under a decentralized command, the war path's aim was twofold. (A) you outrun the enemy attacking targets of opportunity (raiding) using guerilla tactics to cause confusion and mayhem that disrupts any pursuit, or (B) you force the enemy into an area that provides you with the advantage of the terrain to either establish an ambush or face them force on force. What makes the Battle of Big

Dry Wash episodic is Natiotish did both. From his perspective, the threat would only pursue him in a small number (Troop size) so long as they had the necessary logistics. Given the roughness of the terrain and the distance required to acquire his trail, it was likely that they would relinquish the pursuit and return to their forts. However, they did not. On July 14<sup>th</sup>, 1882, Captain Chaffee and Al Sieber picked up the trail of 40-55 Apache above Payson on the East Verde at the Sigsbee ranch (Meise 1998:33). Within a few days, the various cavalry units were converging on the Upper Tonto Basin from all directions in close pursuit of Natiotish’s band. Chaffee and Sieber reported to Major Evans, the commanding officer, that they believed the fight would occur at General Springs.

**TABLE 1.** Apache Threat Description Table

Apache Description Table			
Identify	Location	Disposition	Description
40-55 White Mountain Apache Warriors	In the vicinity of General Springs	Known to operate independently on the battlefield.	Trained to fight in mountainous terrain, can employ asymmetrical tactics of warfare. Can use a rifle adequately. Sought enemies-against power.
5-10 Apache Scouts	In the vicinity of General Springs, about 1.5 miles away from the central element	Operate as individuals	Trained by the U.S. Army as Apache Scouts. Familiar with their tactics.
5-10 Women and Children	With the main camp	Operate as a collective.	Most likely taken against their will from the San Carlos. Familiar with a firearms.

**TABLE 2.** Army Threat Description Table.

Army Description Table			
Identify	Location	Disposition	Description
13 x Troops of Calvary	In the vicinity of General Springs	40-50 men	Seasoned fighters in mountainous terrain can employ asymmetrical tactics of warfare. Can employ a rifle adequately.
3 x companies of Apache Scouts	In the vicinity of General Springs, about 4 miles radius from the main element	Operate under the supervision of an Army Officer in small 5–10-man teams	Trained by the U.S. Army in Mountain Scouting tactics and techniques. Know the land and can track other Apache proficiently.
150 Pack Mules	With the main camp	Operate as a collective.	Carry supplies and medical equipment. Have trouble traversing the terrain.

Terrain analysis is the collection, evaluation, and interpretation of geographic information on the natural and manufactured features of the terrain, combined with other factors, to predict the effect of the landscape during an engagement (ATP 2-01.3). Bleed, and Scott (2011) suggest that terrain analysis in archaeology is an easy way to apply modern military operations analysis tools to battlefield archaeology because it allows the researcher to understand what participants could see and how they would transfer those impressions to the historical record through text and cartographic sources, informed by training and custom. View-sheds of terrain analysis are known by the acronym OAKOC which stands for observation fields of fire, avenues of approach (AAs), key terrain, obstacles, and cover and concealment.

*Observation and Fields of Fire:* This weather and terrain condition allows commanders, soldiers, and warriors to view the opposing force's movement and maneuvers, and firing positions. At the Battle of Big Dry Wash, they could see the subtleties of the terrain provided intervisibility lines that influenced the decisions made by Captain Chaffee and Natioish. Historically, it has been

established that Natiotish's scouts could visually identify Chaffee's 6<sup>th</sup> Cavalry Troop pursuing them. According to Lieutenant Britton Davis, they saw the white horses of Chaffee's troop and kept them under observation from about three o'clock until dark. Likewise, they counted his men and decided to ambush him the following day. This is due to the Apache holding the high ground and being able to use the mountainous terrain of the Tonto Rim to observe the Army from roughly 1 to 5 miles away. Likewise, once Al Sieber and his scouts arrived in the vicinity of General Springs, they were able to assess the location of the Apache camp, likely from the southeast side of the canyon because it is slightly higher in elevation and lacks the density of pines giving them visibility upward of 1000 yards.

Fields of fire within the AO depended on the location. From the "brink," as Davis refers to the canyon's ledge, the field of fire is roughly 1000 yards. In the primary engagement area on the battlefield's north side, the fields of fire are between 50-200 yards at the start of the battle. This is due to the density of the pine trees in some locations. However, Lieutenant Cruse reported that the shadows began to thicken as the fight wore on, likely causing the fields of fire to fall between 25-100 yards. Likewise, the series of runoffs and cuts within the AO, such as Morgan's arroyo and the large ravine, limited the fields of fire to about 25-100 yards. Cruse later wrote that he could only see about 75 yards and knew he had to attack the main camp (Cruse 1941).

*Avenues of Approach:* Identifying avenues of approach is a critical step in terrain analysis. It allows you to visualize the possible routes the combatants traversed to end up on the battlefield or retreat from it eventually. This is done by assessing the useability of restrictive and nonrestrictive terrain within the AO and asking what size force can maneuver through that space on the landscape. The terrain was primarily restrictive for the Army and Natiotish's band, with a few unrestricted areas. Barns (1938) describes the first AA as a rugged and hazardous section of

the 2,000-foot cliff that forms the rim at the head of the East Verde known today as Tunnel Hill. Because of the terrain's restrictive nature, both parties were likely forced to ride in a single file at a slow pace. This arduous march through the narrow corridor undoubtedly forced Natiotish to rest his men and women along with their cattle. Captain Chaffee later reported that his Troop continued north over the rim, passing three Apache camps to General Springs. From General Springs, the terrain became nonrestrictive, creating a more extensive AA with Troop size corridors leading to the canyon's brink. Once in position at the canyon ledge, Captain Chaffee ordered Lieutenant Cramer and Cruse from Troop E, Sixth Cavalry, Sieber, and his Tonto scouts to travel east along the trail about a mile and down a draw to cross the canyon where possible. This AA is considered restrictive and is roughly 20m wide, containing about a section size (five to six) corridor for Troops to cross because of the roughly 1000-foot descent and ascent. Lieutenant Davis later wrote that his unit climbed the chasm's steep side and gained the beautiful stream at the bottom. He further explained that this movement to the East took him 45 minutes to conduct the day after the fight without anyone shooting at him. Likewise, Captain Abbott and Troop K, Sixth Cavalry traversed an AA along the trail's west side, descended the canyon at a draw about 30m wide, and ascended a tight draw of about 20m wide on the canyon's north side. This AA contained mobility between section and platoon sizes (Figure 2).

Although it is unclear what AA the Apache took to get to the North Side of the canyon, it can be assessed based on the slope and height of the canyon that they likely traveled down and up a similar draw, if not the same draw as the Troopers did.

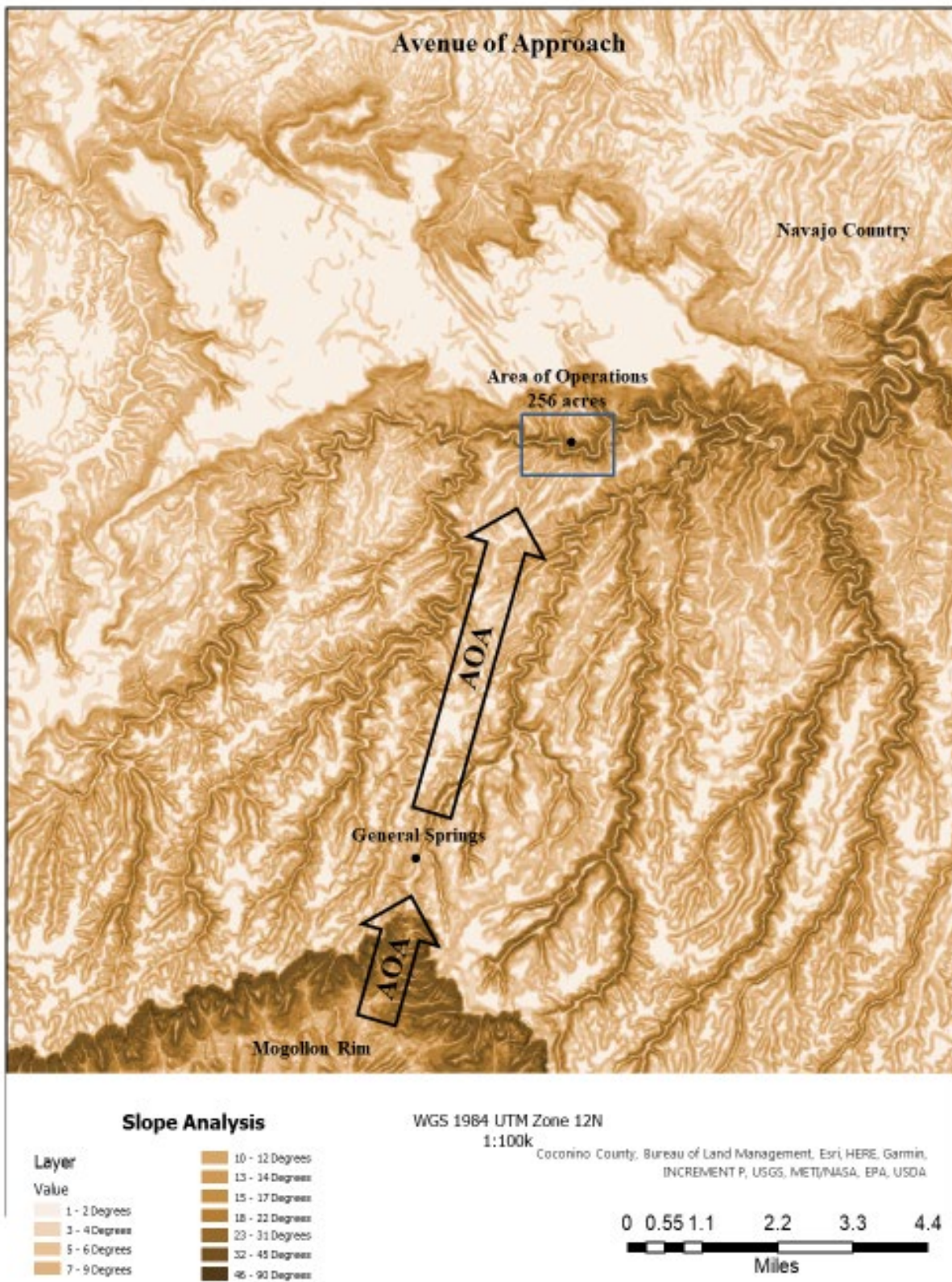


FIGURE 2. Avenues of Approach at the Battle of Big Dry Wash.

*Key Terrain:* Holding key terrain is critical to meeting operational objectives. In a natural terrain environment such as the Battle of Big Dry Wash, these features are exemplified by areas of high ground that are conducive for the emplacement of scouts because they can provide observation and fields of fire. Throughout the AO, there are four pieces of key terrain. The first key terrain is the AA on the Tonto Rim near Tunnel Hill, used by the Apache. This location is advantageous because it provides excellent observation and is one of the only places to cross the rim. Whoever controls it controls access north into the Navajo territory. The second key terrain is General Springs because it is proximate to a cliff where the trail climbs out of the Tonto Basin onto Crook Road. Because of this, it offers a prime position for whoever holds it to establish an ambush. According to Al Sieber, this position is where the Apache would attempt to cut up the Troopers (Cruse 1941). The third key terrain is the North Side of Diablo canyon overlooking the wash because it controls access to the canyon's north side. From this position, occupants can observe troop locations and engage them across the canyon and in a kill zone at the bottom of the wash or within the large arroyo that runs northeast of the AO.

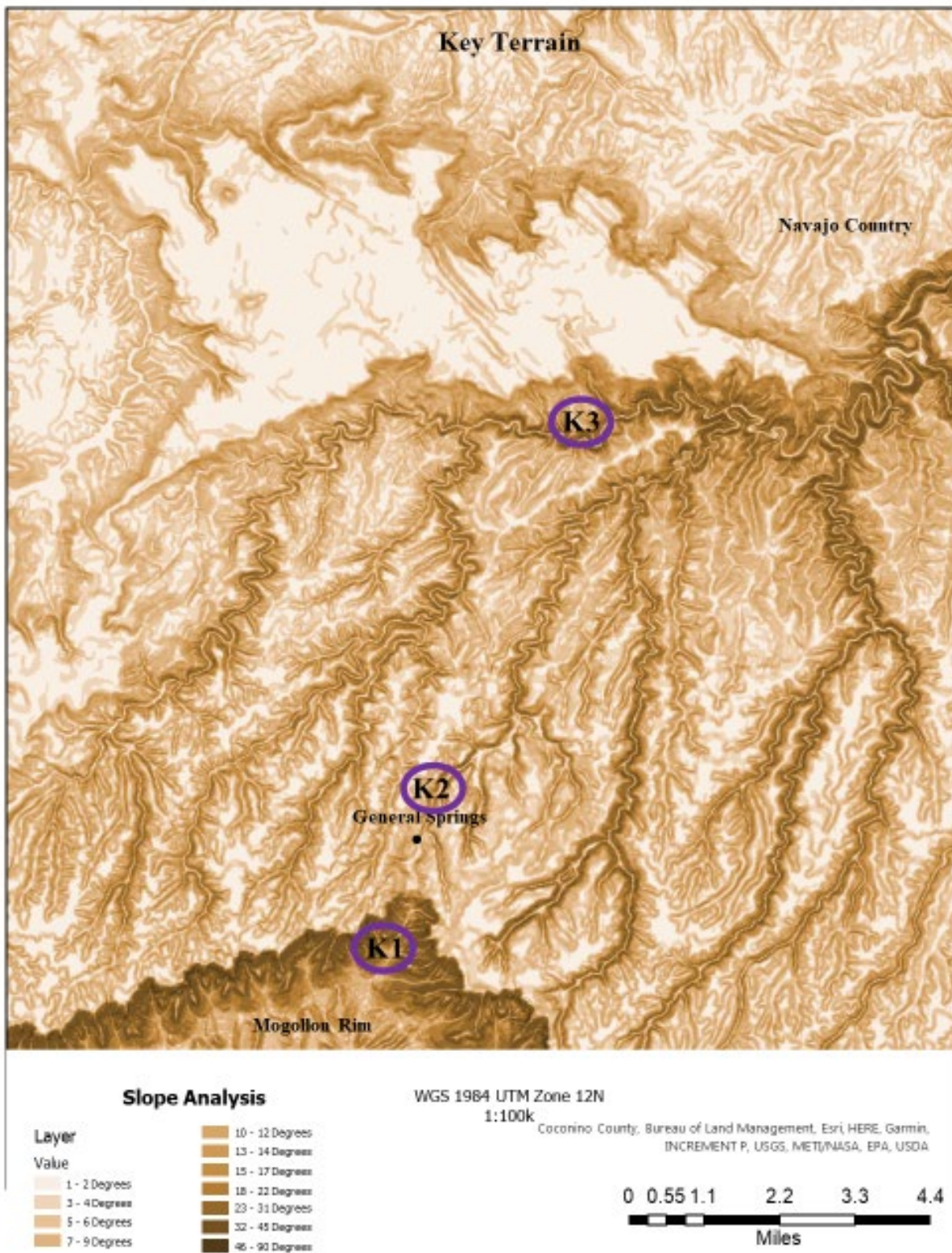


FIGURE 3. Key Terrain at the Battle of Big Dry Wash.

*Obstacles:* Natural or artificial obstacles disrupt, block, fix, or turn the enemy into an engagement area within the AO. Four obstacles in the Battle of Big Dry Wash affected the Army and Apache's decisions. The first obstacle is the Tonto Rim. This area not only constricts movement but it makes coordination between units difficult. For example, lines of communication (LOCs) were severely degraded for both parties. The Army did not have a telegraph in this area and relied on a courier. Throughout the pursuit, Troops were often unaware of each other's locations. For example, Lieutenant Davis explains that Major Evans had to rely on his scouts to identify Captain Chaffee's trail. For the Apache scouts, this area had cultural impacts. According to Lieutenant Morgan, the White Mountain scouts from Fort Apache under his command were not anxious to continue the pursuit. They attempted to persuade Major Evans into thinking that Natiotish's band was too far ahead and claimed the country ahead was terrible medicine. The second obstacle significant to the Battle is Canyon Diablo. This obstacle turns or fixes the enemy into engagement areas advantageous to the occupying force in established fighting positions, i.e., Natiotish's band. Likewise, it impedes the ability to retrograde if necessary and provide medical support. During the Battle, Lieutenant Cruse recalls many Apache attempting to get away by jumping over the canyon's edge and aid and litter details having to hand carry the wounded down and up the steep draws of it. Finally, the runoffs and cuts degrade and serve as obstacles that present two hazards. First, they disrupt fields of fire, and second, they limit mobility by blocking and turning forces into fixing positions within kill zones. Morgan's arroyo, which ran north to south on the canyon's north side, and the ravine that runs east to west are examples of this type of obstacle.

*Cover and Concealment:* Cover is a natural or manufactured object that protects from direct fire. Concealment is a natural or manufactured object that conceals the location of combatants and

does not provide protection. Throughout the battlefield, concealment at Big Dry Wash was primarily limited to runoffs, cuts, and crawl spaces between rocks because of the lack of vegetation; thus, it does not render an extensive review. However, an array of cover described by several troopers existed in large rocks, boulders, and pine trees, providing an abundance of cover that the Army and the Apache utilized. In his account of the battle, Cruse writes, “We fired into them and saw some fall and others jump to hunt cover behind the pines.” The Apache also crafted a series of fighting positions identifiable by breastworks constructed on the canyon's north side along Morgan’s arroyo. These built types of cover were intended to ambush the Troops maneuvering through this AA. Constructing breastworks was common among the Apache and Troopers in the West. At the Battle of Apache Pass, archaeologists uncovered several along

**TABLE 3.** Terrain Effects Matrix.

<i>OAKOC factors</i>	<i>Terrain Effects</i>
<b>Observation and fields of fire</b>	<ul style="list-style-type: none"> <li>• Mountainous terrain of the Tonto rim with observation between 1-5 miles and fields of fire between 500-1000 yards.</li> <li>• From either side of Canon Diablo (Big Dry Wash), observation and fields of fire ranged between 500-1000 yards.</li> <li>• The north side of the battlefield comprised of pine forest with large arroyos and ravines allowing observation and fields of fire between 50-200 yards in the daylight. As the sun set, this decreased to about 25-100 yards.</li> <li>• Intermediate breaks in observation and fields of fire due to runoffs and cuts limited observation and fields of fire to roughly 25-100 yards.</li> </ul>
<b>Avenues of approach (AAs)</b>	<ul style="list-style-type: none"> <li>• Rugged and hazardous 2,000-foot cliff that forms Tunnel Hill.</li> <li>• Generally flat terrain from General Springs to Canon Diablo with troop-size mobility corridors.</li> <li>• Two 1000ft draws roughly 1000m to the east and west of the south side of the canon with section-platoon size (5-40 soldiers) mobility corridors between 20-40 meters wide.</li> </ul>
<b>Key Terrain</b>	<ul style="list-style-type: none"> <li>• Tonto Rim: Controls access North and offers observation of the AA.</li> <li>• General Springs: Rough terrain that offers an ambush position.</li> <li>• The Northside of Canyon Diablo: Controls access across the canyon and can be used to create engagement areas and kill zones.</li> </ul>
<b>Obstacles</b>	<ul style="list-style-type: none"> <li>• Tonto Rim: Limited LOCs, cultural impacts.</li> <li>• Canyon Diablo is 200 to 1,000 feet high</li> <li>• Restrictive runoffs and cuts that run throughout the AO with depths that range between 5 to 20 feet and 10 to 20 ft wide that run 400 to 800 meters</li> </ul>
<b>Cover and concealment</b>	<ul style="list-style-type: none"> <li>• Intervisibility lines provide cover by direct fire, large pine trees that can reach about 112 feet tall by 48 inches around, large boulders that can be 4 to 6 feet tall and wide, and breastworks constructed about 3ft tall and 4 feet wide.</li> <li>• Concealment is limited to runoffs and cuts in the terrain and sparse vegetation.</li> </ul>

Overlook Ridge. Cochise and his men used these positions to fire down on the California Volunteers as they charged up the hill. Likewise, at K-H Butte, these fortifications were constructed at several heights to allow Apache and Troopers to lie prone or kneeling as they exchanged fire throughout a wide area (Stute and Ludwig, 2003).

*IPB Step 3: Evaluate Force Capabilities*

Determining force capabilities is a holistic process that covers an array of attributes that a military or nonmilitary force can employ on the battlefield. Its primary use is to evaluate the organization of forces, their disposition and strengths, what weapons capabilities they can utilize, and what tactics and techniques are historically applied to the situation. For archaeological research, this process, in conjunction with understanding the environment and its effects based on historical documentation, paints an initial picture of a battle and what material evidence should appear to prove or disprove a particular hypothesis of that engagement. Moreover, it allows the researcher to visualize what decision points led to a specific course of action by a commander and why that action was made.

### *Army Capability*

In a letter to Morgan, General Cruse recalled that Chevalone Fork—as he always called it—was one fight that combined an array of forces so concentrated that the effects were deadly. No statement can be more insightful to describe the Battle of Big Dry Wash because no other battle in the Northern Arizona territory reached the level of carnage. General Wilcox's decision to send an abundance of mounted cavalry from several Forts in Arizona may provide credence to Washington's loss of confidence in his inept ability to manage Indian affairs. Nonetheless, in a modern battle, a 3:1 ratio is acceptable. Kress and Talmor's (1999) findings conclude that a modern battle is characterized by an engagement where concentrated fire can be massed at all live combatants actively involved in combat, and more than one shooter may engage targets. Therefore, the deployment of Troops A, C, D, E, I, G, K, and L from the 3<sup>rd</sup> Cavalry and Troops D, E, I, and K from the 6<sup>th</sup> Cavalry, along with two B and E Apache scout companies and 150 fully packed mules with packers under the command of Major Evans was an appropriate measure to combat the

estimated 50-60 White Mountain Apache warriors led by Natiotish. The Army's ability to mass firepower using the 1873 Springfield Trapdoor rifle, Winchester 1873, and Colt 1873 pistol was pivotal to their victory in the battle (Figure 4).

Moreover, the combat experience of the Army Officers and Troopers was equally as important. Both Major Evans and Captain Chaffee were Civil War veterans with considerable knowledge in mountain scouting and Apache pursuits. The Chief of Scouts, Al Sieber, and First Sergeant Mickey Free were also vastly experienced in these types of operations in both Mexico and Apachería. Together the pair had been working for nearly a decade. According to Thrapp (1964), Sieber was involved in more Apache Fights than Daniel Boone, Jim Bridger, and Kit Carson combined, making him the Euro-American authority in mountain scouting. Mickey Free, the boy who started the first Apache War in 1861, was equally capable. He was born Felix Ward but was taken captive by an Apache raiding party as a boy and raised to be a White Mountain Apache warrior.

The most vital force capability the Army possessed was the Apache Scouts. Under the leadership of General Crook, the Army successfully recruited and utilized the skillset of these Apache to pursue, fight, and capture "renegade Apache." Their knowledge of the land, Apache tactics and techniques, and eagerness to prove themselves as warriors were instrumental to General Crook's campaign. According to McLachlan (2015), in 1877, about 600 Apache scouts were serving in the Army. Each scout company was made up of 25 men and commanded by a white officer. Captain John Bourke wrote of them, "The longer we knew the Apache scouts, the better we liked them. They were wilder and more suspicious than the Pimas and Maricopas but far more reliable and endowed with greater courage and daring." Bourke further writes that the scouts were armed with Springfield breech-loading rifles (Model 1873), army pattern, a canteen full of water,

a butcher knife, an awl in a leather case, a pair of tweezers, and a tag. It was common for the scouts only to be armed with five 45/70 bullets, each of which had to be accounted for regularly. Their rate of the march was roughly four miles an hour on foot, and they could keep this pace for approximately fifteen miles. (Table 5).

Army frontier tactics in the 1880s were limited by the lack of training and doctrine for fighting the Apache Wars. The predominant tactics used at the time have similarities to the Apache, such as ambush and raid. However, the Army typically found itself on the offensive and pursued the Apache through rough terrain. Most of these pursuits ended in failure or minor skirmishes. During this period of warfare, no official doctrine existed to help units integrate recruits into frontier warfare. Therefore, on-the-job training was the primary way for new troopers to garner experience. However, in 1881 the publication of *Mountain Scouting* by Edward S. Farrow uniquely offered insight into frontier warfare. At the time of its publication, it was foreign to the curriculum of the U.S. Military Academy, which contended that the study of conventional doctrine superseded the aberration of frontier combat. This book served as a guide or unofficial counterinsurgency doctrine for frontier troopers. Tactics and techniques covered in this book include marching, shooting, tracking, and skirmishing.

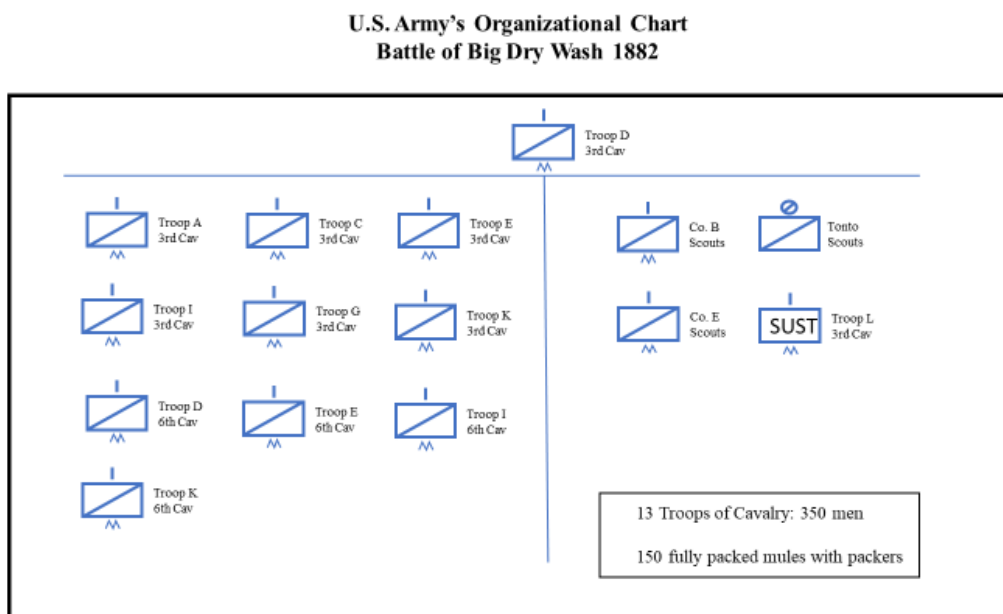
According to Farrow (1881), the rate of march for troopers depends on the day. Some may be heavy up to thirty-five miles, and others light ten to fifteen. Unless conducting forced marches, these movements should be concluded with the necessary wood, water, and grass requisites. Marches should be done in three-mile intervals (1 hour) followed by a ten-minute rest. He further states that when animals have been taken from grain, it is necessary to make very short and easy drives for the first few days, and sufficient time should be allowed for drinking.

Before 1882, troopers lacked efficient rifle training because qualifying was not an Army requirement, nor did units have sufficient ammunition for practice. Therefore, Farrow's book offers suggestions for troopers to keep in mind while firing their weapon. For instance, the drift of a .45 bullet from an 1873 Springfield service rifle is two feet at 500 yards while traveling 1,350 feet per second. The wind is also a factor that a trooper must keep in mind when firing his weapon. Farrow says that when the wind is too high or variable, a soldier should alter the wind gauge twelve or more feet between consecutive shots over a range of 1,000 yards to maintain accuracy (Table 4).

Another critical aspect of frontier warfare is tracking. This skill requires the ability to carefully observe signs and signals that make up a trail and is necessary to maintain pursuit. Farrow suggests that while on the track of the enemy, it is crucial to know the customs of the various tribes to distinguish between hostile and friendly natives. For example, the contents left at a deserted camp, the type of resting places, and fire making are evidence that distinguishes one group from another. Pony tracks are also indicators of the rate of march and direction. Ponies are seldom shod, and the distance between tracks is roughly three feet. When trotting, these tracks increase to six and a half to seven and half feet apart.

Most engagements in the frontier were skirmishes, which are small engagements that typically result in the formation of skirmish lines. While engaging in this action, Farrow writes that a small command should be kept together and never divided into detachments if it can be avoided. Additionally, night marches and day attacks are best suited when the trail of the natives is hot. Yet, commanders must be mindful of an ambush if there is no visible sign of a war party in proximity. Equally, commanders need to pay attention to the high ground and its importance to observation and fields of fire. Troopers should also be capable of building hasty fighting positions

and fortifications such as breastworks. Lastly, soldiers must know native tactics and techniques implemented in a fight. For example, when a warrior fails in battle, he will abandon his attack or purist and trust the speed of his pony for escape. As a last resort, he will leave his horse and baggage and take to the rocks or timber on foot. Also, most natives do not shoot in rapid succession but take their time to ensure accuracy.



**FIGURE 4.** Army Organizational Chart.

**TABLE 4.** Army Direct Fires Capabilities.

Army Direct Fire Capabilities			
Firearm	Ammunition	Rate of Fire	Max Effective Range
Winchester Model 1873	44-40	15 rpm	150 yards
Springfield Model 1873	45-70-405	12-13 rpm	500 yards
Colt 1873	.45	6 rpm	75 yards

**TABLE 5.** Force Capability Statements: This identifies the Army’s preferred capabilities and tactics used force to accomplish its objective. It addresses the operations portrayed on the threat template and the activities of each force’s capability (ATP 2-01.3).

Army Force Capabilities Statement	
Army element	Statement
Command and Control	Without telegraphs, Army Troops could establish communications through couriers to pass orders and reports along.
Movement and maneuver	Must rely on an Apache trail to stay in pursuit
Scouts	Apache or Yavapai; Deployed ahead of the main element; Critical to identifying and maintaining the trail.
Sustainment	Pack trains carry food and supplies along with medical personnel. Vulnerable to raid and ambush.

### *Apache Capabilities*

In contrast to the Army, scholars consider that the Apache were disadvantaged in experience and weaponry compared to the Calvary Troopers. In a letter to Morgan, Breton Davis remarks that had the Apache been led by captains such as Victorio, Cochise, Mangas Coloradas, Naha, and even Geronimo; the concentration would not have been effective. Such a leader would have known the number of troops near him, and the Apache would not have stopped to give fight Chaffee. “They would have scattered in the mountains, like quail when the hawk dies. Their leader Natiotish lacked experience or was not gifted with the capacity to take infinite pains.” However, Natiotish and a few of the members within his band were former Army Scouts and followers of Nockaydelklinne, the famous medicine man killed at Cibecue Creek. After he died, Natiotish and his warriors spent significant time raiding outside the San Carlos reservation. Likewise, they assisted Loco and the Chiricahua breakout from San Carlos a few months prior. This breakout of nearly three hundred Apache may be why Natiotish could not garner the support of any more than fifty-five warriors.

Moreover, they could secure considerable ammunition and firearms after killing Cibecue Charly and during their depredations throughout Pleasant Valley. Therefore, they likely had an assortment of rifles and pistols, including a Colt .45 pistol, a Winchester Model 1873 .44-40 rifle, a Springfield Model 1863 .58 minié ball musket, and a Springfield model 1873 .45-70-405 trapdoor rifle, the same as the Army Troopers used. Their experience raiding and the weapons they acquired garnered a level of respect and caution from Captain Chaffee and Major Evans to avoid falling into an ambush (Table 6).

During the Apache Wars, the raiding and warfare concentrated predominantly on asymmetric warfare to create a protracted resistance against Euro-American occupation and policy. They did so by incorporating elements of an insurgency with guerrilla warfare. Scholars such as Galula 1964 and Kilcullen 2009 propose that an insurgency is a technology of military conflict characterized by small, lightly armed bands practicing guerrilla warfare that primarily use raid and ambush as their measure to conduct operations from the mountains of the Arizona territory. Fearon and Latin's (2003) study concluded that a region with a high density of mountainous terrain is a 13.2% chance of an insurgency being formulated because it favors a highly mobile group of people who can outpace an unconditioned Army in pursuit.

Apache warriors began military training at an early age; trained as *dikohe*, they were toughened by their elders to complete combat readiness training and survival techniques that included swimming, running, weapons proficiency, and creation (Barrett 1996; Basso 1971; Meadows 1999; Opler 1996; Smit 2016; Watt 2012; Watt 2008; Worchester 1979). This training ensured they could conduct "warfare" like operations in any landscape condition (Lahti 2017:41). This mindset was ingrained in every level of Apache society, including daily tasks, linguistics, and spiritual guidance. Opler and Hoijer (1996) write that every locality had special knowledge

concerning raids and war and whose ceremonial preoccupations had to do with locating the enemy, providing invulnerability in a battle for clients, divining the outcome of raids, and curing wounds suffered in warfare. Leadership within Apache society was derived from military stewardship, bravery, and charisma (Lahti 2017; Watt 2012; Watt 2008). Moreover, Apache did not wage war unless they sought revenge and primarily focused on raiding (Meadows 1999; Lahti 2017; Watt 2012; Watt 2008; Worchester 1979). Terrell (1972) says, “The secret of the Apache warrior is chiefly his physical training. He is born out-of-doors, and until his comrades pile above his clay the rocks which cheat the prowling coyote, he draws no breath elsewhere.”

*?ikaʼsita?* (‘going to war’) was based on the decision of the clan chiefs to engage collectively in the pursuit of taking lives. In Western Apache culture, this decision was made to seek retribution for previous losses of kin. War parties comprised as many as two hundred men under the leader's direction. Additionally, they contained one shaman, or “medicine man” (Basso 1971:20-22). Typical types of attacks that were conducted on the warpath included raiding, ambush, and direct attacks.

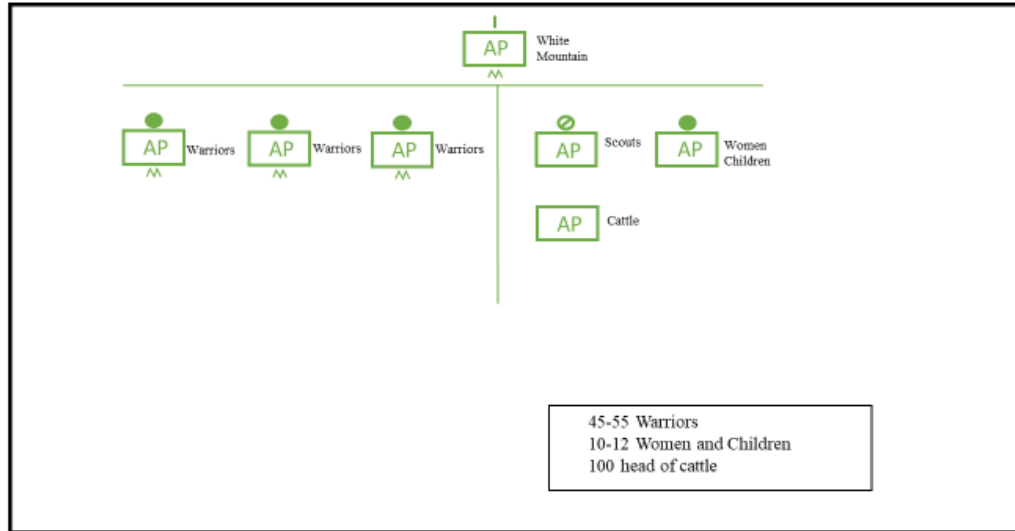
At its core principle, raiding is not a primary form of warfare. Instead, it is purely a means of taking property from an enemy to supply an economy of consumption and trade (Watt 2012:16). The primary goods acquired in a raid were cattle, horses, guns, and ammunition. Captured horses and cattle might be kept or traded, depending on circumstances. These targets were considered resources that could be counted on throughout the year to produce food and livestock. Before each raid, Apache would conduct surveillance and reconnaissance to ensure minimal casualties. Raiding parties typically comprised five to fifteen men in the early morning. The raiding party proceeded slowly and utilized concealment until it moved into enemy territory. Basso (1971) writes that as the pace quickened, several taboos went into effect, including the use of special “warpath

language.” If a raid was conducted on the warpath, it was usually aimed at an individual or the town in which the individual resided.

Ambushes are another preferred method of engaging the enemy. According to the U.S. Army Ranger handbook, an ambush is a surprise attack from a concealed position on a moving or temporarily halted target and can be hasty or deliberate. According to Watt (2012), the ambush's primary aim was to cripple the enemy's ability to respond to the first volley of direct fire. Ambush positions were typically chosen overlooking a movement corridor that would trap an enemy in the kill zone. Likewise, ambush positions were chosen because of available cover, concealment, and retrograde routes. It was also common for the Apache to use decoy tactics to lure Troopers into a false sense of security. These included covering pony tracts, gunfire, simulated innocence, and simulated panic.

Apache women such as Victorio's sister Lozen participated in raids and wartime operations (Williams 2017:28). From these accounts, scholars can conclude that their roles within a warrior society resemble traditional gender roles. Still, they have agency to fight, hunt, and rouse warriors to warpaths, albeit maintaining a household and raising children. (Buchanan 1986; Opler 1991; Watt 2012, 2008; Williams 2017). Like Apache boys, girls were also trained to endure the hardships of a mobile lifestyle. They participated in physical activities and weapons training, allowing them to fight when necessary (Buchanan 1986, Watt 2008).

**Apache Organizational Chart  
Battle of Big Dry Wash 1882**



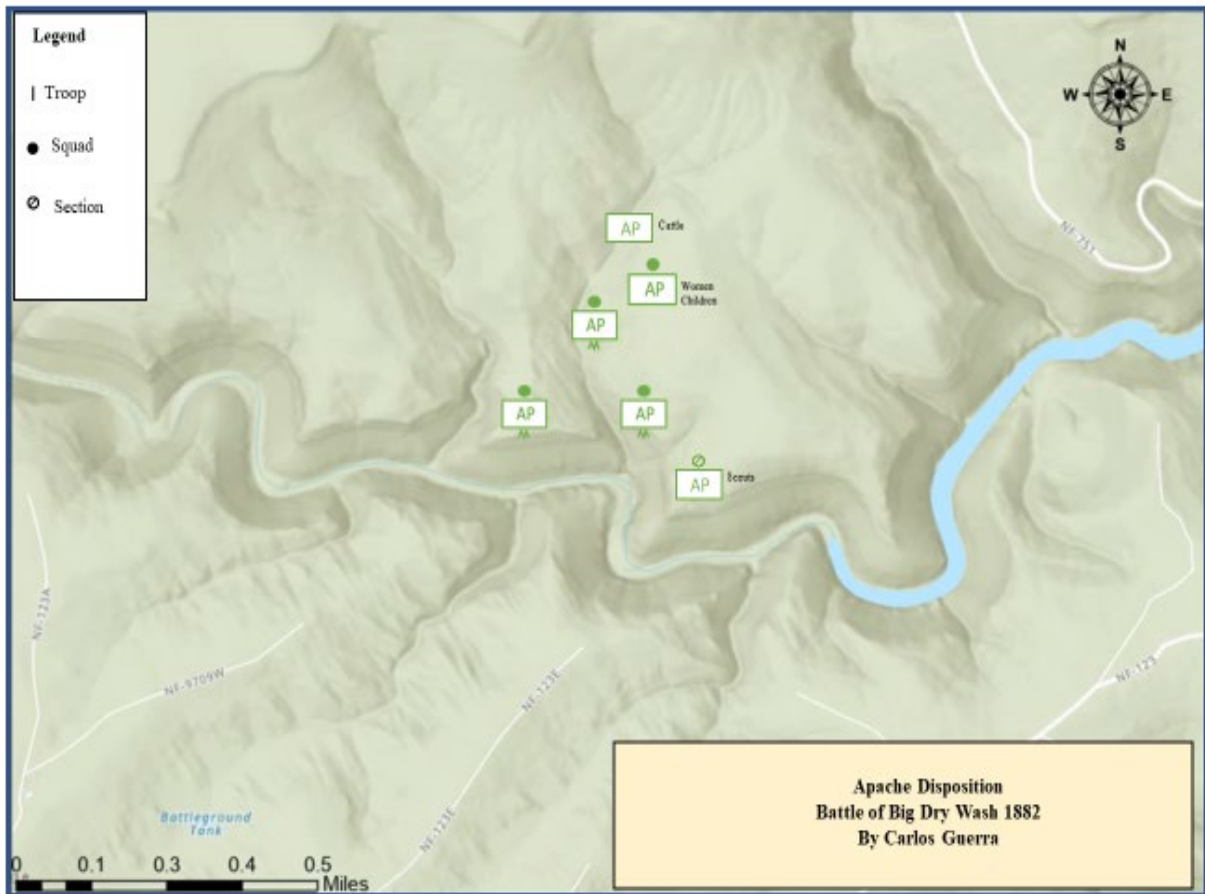
**FIGURE 5.** Apache Organization Chart.

**TABLE 6.** Apache Direct Fire Capabilities

Apache Direct Fire Capabilities			
Firearm	Ammunition	Rate of Fire	Max Effective Range
Winchester Model 1873	44-40	15 rpm	150 yards
Springfield Model 1863	.58 (Minié)	2-4 rpm	400 yards
Springfield Model 1873	45-70-405	12-13 rpm	500 yards
Colt 1873	.45	6 rpm	75 yards

**TABLE 7.** Apache Force Capability Statements: This is an identification of the Apaches preferred capabilities and tactics used force to accomplish its objective. It addresses the operations portrayed on the threat template and the activities of each force’s ability (ATP 2-01.3).

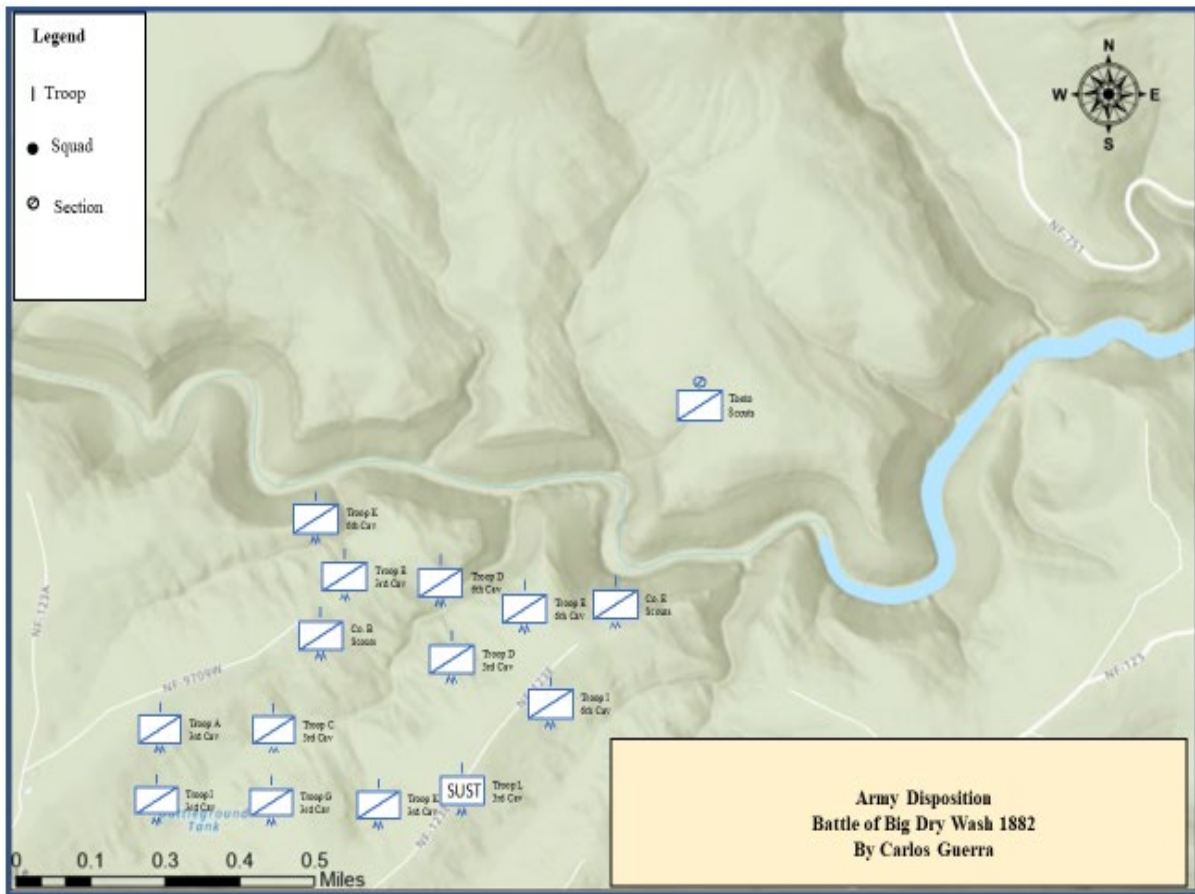
Apache Force Capabilities Statement	
Apache element	Statement
Command and Control	Limited ability to maintain control throughout conflict due; to lack of experience.
Movement and maneuver	Not coordinated beyond the initial engagement.
Scouts	May have Army training; can be limited by numbers.
Sustainment	Hunter-gatherer; a herd of cattle that can slow movement.



**FIGURE 6.** Disposition of Apache Forces.

**TABLE 8.** Disposition of Apache Forces Northside of the Canyon.

Apache Element	Zones			
	Disruption Zone	Battle Zone	Support Zone	Totals
Command and Control		1x section		
Movement and Maneuver		3x squads		
Scouts	1x section			
Sustainment			1x squad	



**FIGURE 7.** Disposition of U.S. Army Troops.

**TABLE 9.** Disposition of Army Troops Southside of the Canyon.

Army Element	Zones			
	Disruption Zone	Battle Zone	Support Zone	Totals
Command and Control		1x Troops		
Movement and Maneuver		10x Troops		
Scouts	2x Scouts Co 1x Scout Section			
Sustainment			1x Troops	

*IPB Step 4: Archaeologically Determine the Course of Action*

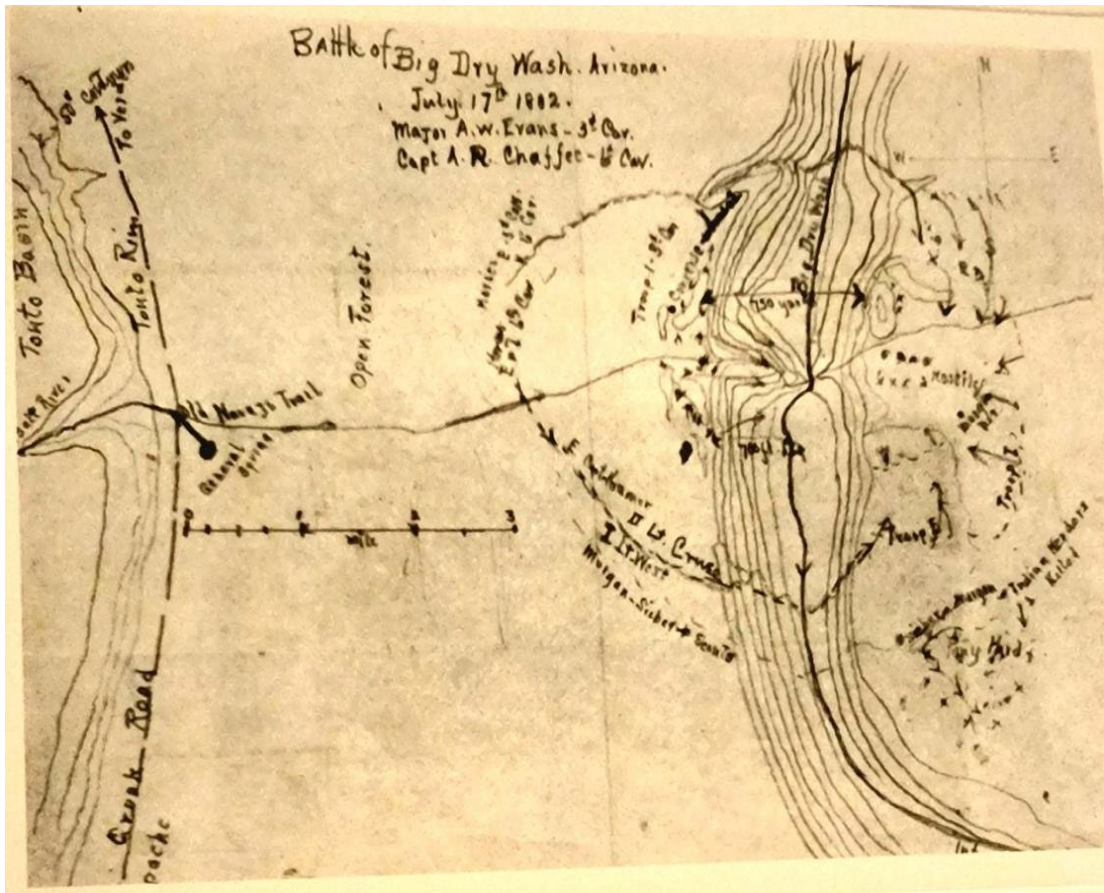
The contemporary U.S. Army Intelligence application of determining the course of action (COAs) is focused on the antagonist's ability to influence friendly operations. Determining the threat COAs is necessary to aid the development of the protagonist's operations. It helps a commander maintain a favorable outcome of success by not being surprised by the threat's unanticipated action. The development of COAs is based on the analytical assessment of the previous three IPB steps to determine the likely objectives and end state of the combatants. According to ATP 2-01.3 (2019), an objective is the clearly defined, decisive, and attainable goal toward which an operation is directed. *Objectives* are usually terrain or force-oriented and used to seize, defend, delay, or disrupt operations. The *end state* is the set of required conditions defining the operational objectives' achievement driven by an event or time constraint.

From a battlefield archaeological perspective, determining the COAs of a battle with a defined event matrix based on historical analysis is not the objective. Instead, the aim is to use historical research to confirm, deny, or add new inferences to those events by applying archaeological methodologies. At the Battle of Big Dry Wash, metal detector technology and

spatial analysis on a Geographic Information System (GIS) platform was the most efficient way to proceed.

*Historical and Archaeological Analysis.*

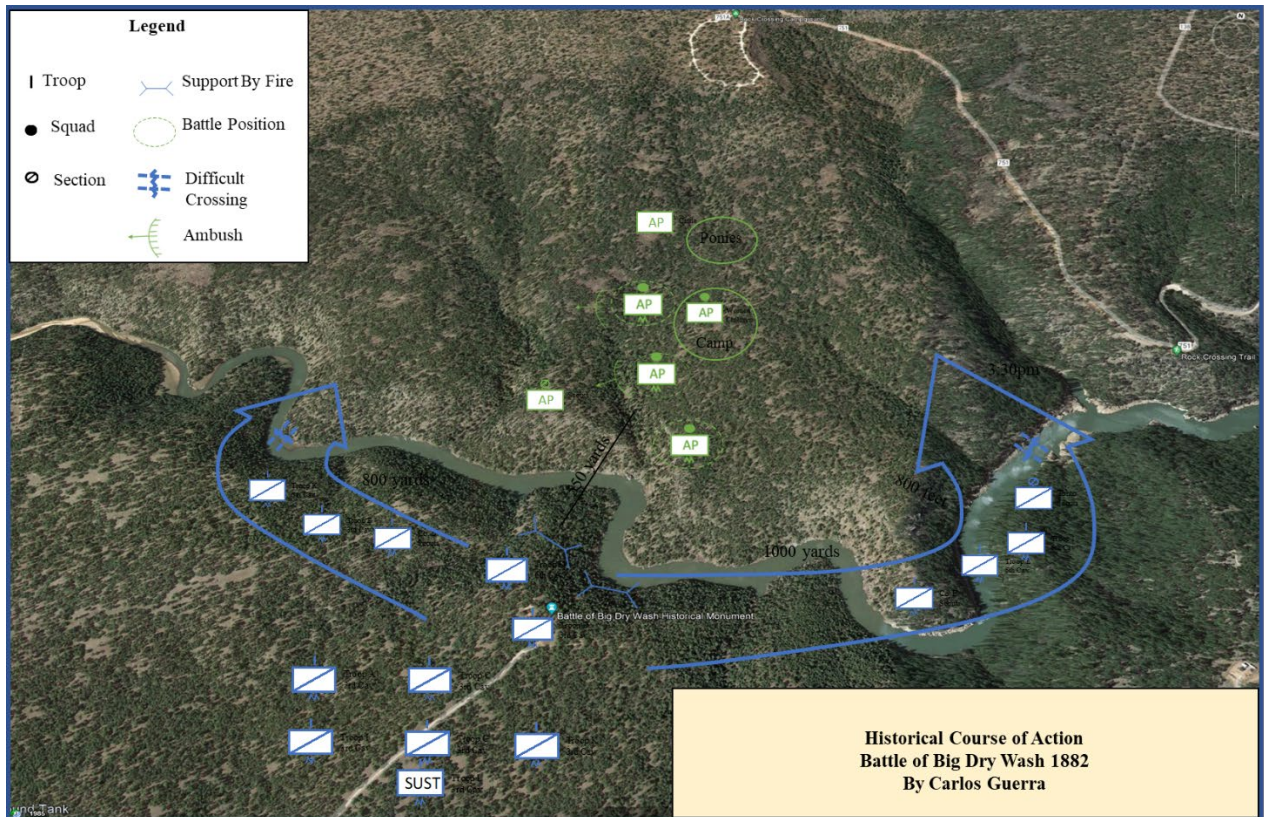
The location of the Battle of Big Dry Wash is identified by a monument located on the south side of the canyon north of the General Springs campground. However, the decisive engagement areas of the battle took place on the adjacent side of the chasm. An excerpt from Gen. Cruse's book *Apache Days and After* provides a historical map (Figure 8) and an account of the events during the fight. The following will be a combination of those events with the addition of archaeological evidence found in eight Engagement Areas (EA) to support the account.



**FIGURE 8.** General Cruse's map of the Battle of Big Dry Wash.

The Battle of Big Dry Wash can be broken down into three phases. Phase I began after Captain Chaffee took command of the battle from Major Evans. Upon doing so, he evaluated the situation and immediately gave his orders to his Troops. He ordered Troop D under Lieut. Converse to establish a support by fire (SBF) position on the south side of the canyon. From this position, the troopers placed direct fire on the Apache behind breastworks on the canyon's north side. In the early 1980s, armature archaeologists recovered an assortment of three hundred and two .45 cal. Cartridges from possibly thirty-two firing positions along the edge of the canyon. Also found near these sites were six .45 cal. 405 gr. Bullets indicating return fire from Apache firing positions. During my survey of the battle's southside, I identified most of these sites based on notes provided by the Coconino National Forest. Additionally, I could locate an additional five cartridges

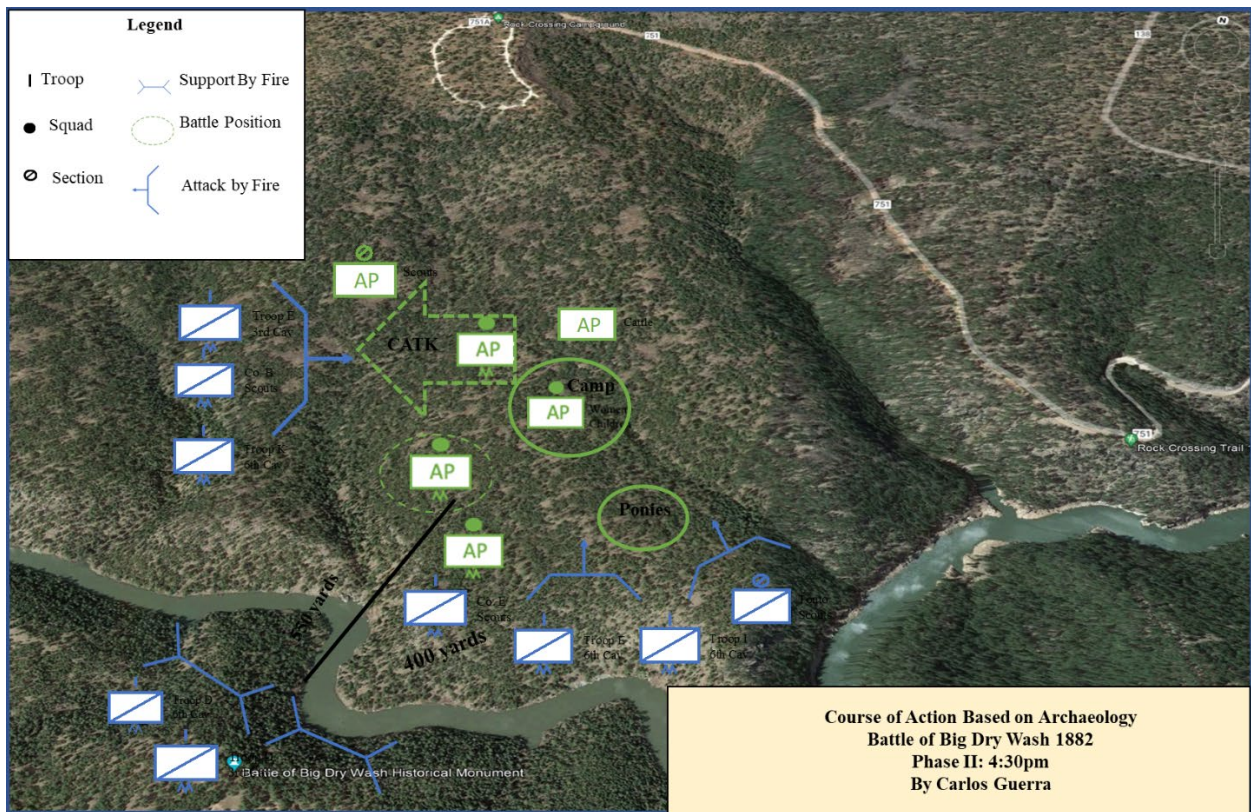
and three bullets. These firing positions are indications that the SBF position established by the D Troop was able to accomplish two primary objectives by Capt. Chaffee. First, select a base of fire to suppress Natiotish and his warriors in EA 1 and EA 6. Secondly, draw fire from the Apache to (a) assess their strength and (b) turn their attention away from their flanks, allowing I Troop, E Troop, K Troops, and Apache Scouts freedom of maneuver to locate crossing positions (Figure 9).



**FIGURE 9.** COA Based on Historical Accounts of the U.S. Army.

Capt. Chaffee ordered Lieutenants Kramer and Cruse to maneuver E Troop east with Siebers' scouts and I Troop under Lieutenants West and Morgan. He instructed this element to cautiously find a suitable passage about a mile down the ridgeline and cross the chasm where possible. Their tactical task was to establish an attack by fire position on the north side of the canyon and engage the Apaches eastern flank. Lieut. Cruse states that Troops traversed a rugged

ledge of the north side of the canyon about 800ft. Once on top, Lieut. Morgan, Sieber, and his Tonto scouts identify the Apache pony herd to the rear of the Apache ambush. Once in position, they fired and killed the guards and captured their herd, sending the ponies to the force's rear. However, this action alerted the Apache on the canyon's edge to their presence. Startled at the overwhelming number of troopers, the Apache attempted to reestablish fighting positions to the east but could not. As the warriors withdrew to the horses, they encountered Cruse and West's men approaching the ridgeline south of the pony herd (Figure 10).



**FIGURE 10.** Phase II of the Battle of Big Dry Wash.

Archaeological evidence of the battlefield supports this part of General Cruse's account (Figure 11). The only discrepancy is the distance the Troops traveled to cross the canyon (Figure 12). The location of several .45 cartridges arrayed in a skirmish line on the northern edge of the canyon is located at the mouth of a draw that is roughly 800 ft high (Figure 13). This draw is

approximately 400 yards east of where the Chaffee initially initiated his orders. It is likely that based on the difficulty of the terrain, the Officers decided to cross the chasm at the earliest opportunity. While it is possible that the Apache could have observed their movement, they likely did not because the SBF position held their gaze. .405g bullets and bullet fragments were also identified near the cartridges. This signifies possible return fire from the Apache in the direction of the troops. These areas are identified as EA 2 and 3.

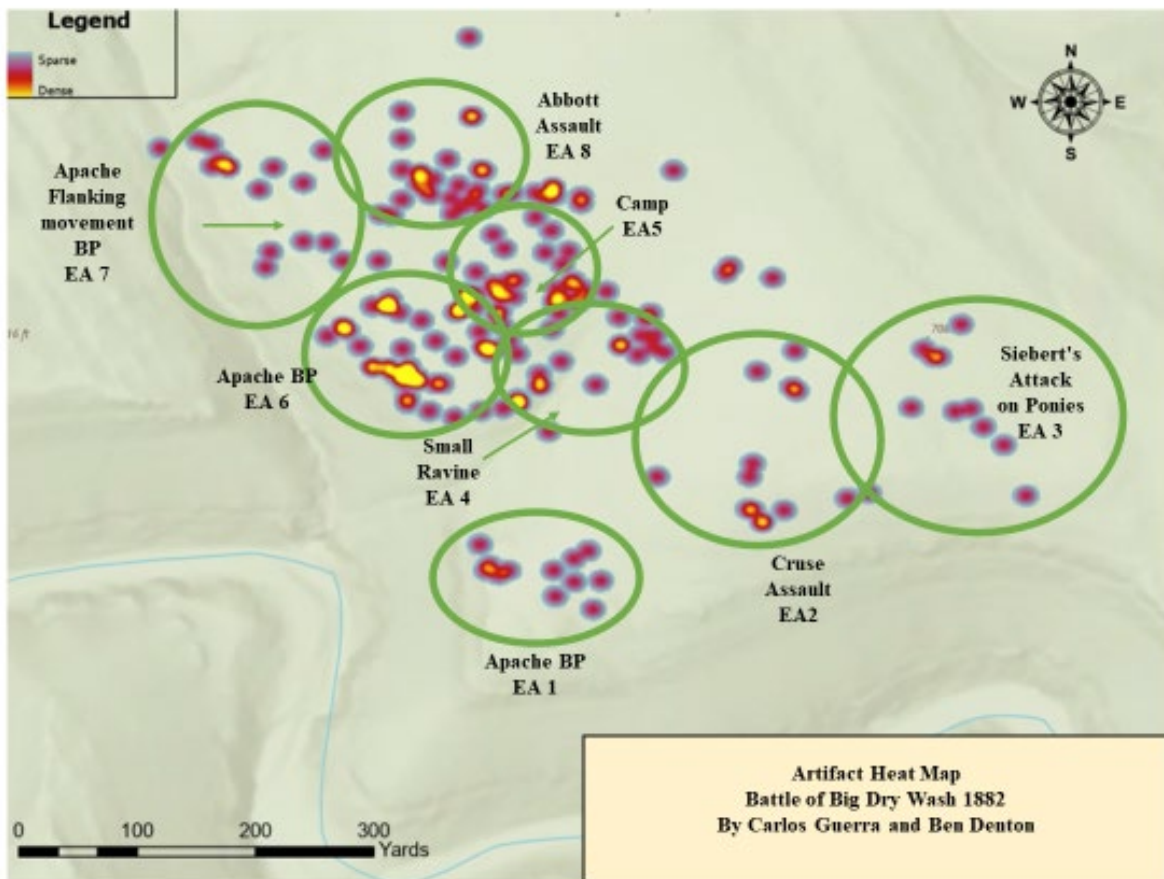


FIGURE 11. Heat Map of Artifact Density by Combatants at the Battle of Big Dry Wash.

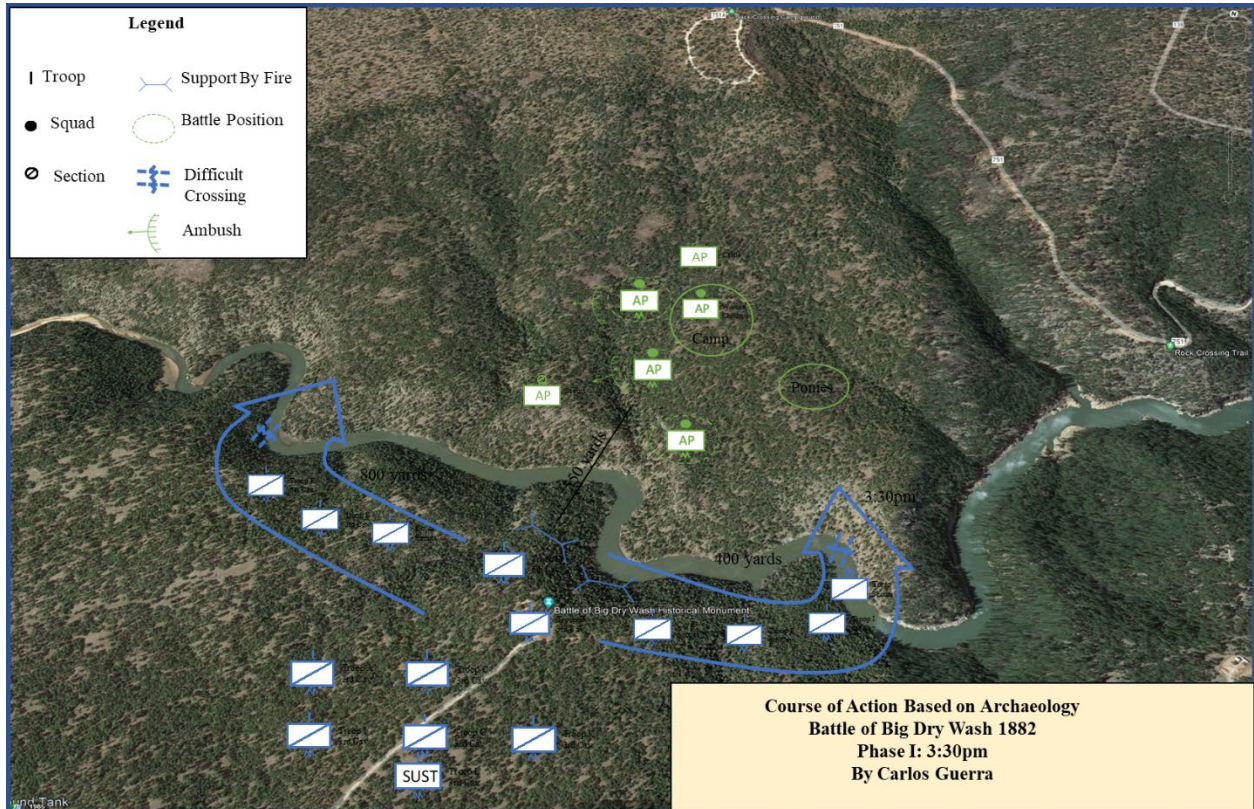
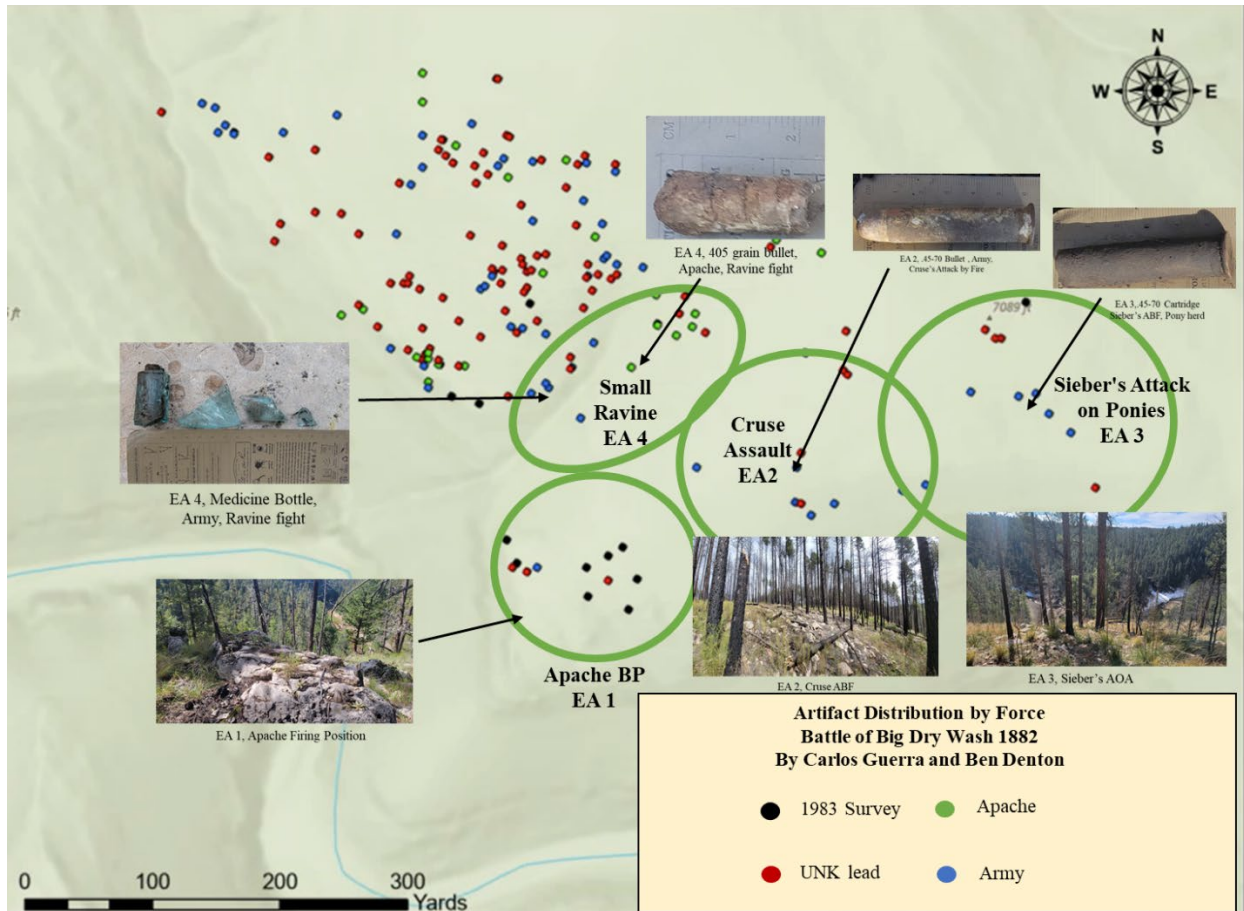


FIGURE 12: Phase I of the Battle of Big Dry Wash.

At the same time, the eastern element made their way across the canyon. Captain Chaffee ordered Troop K, Sixth Cavalry, under the command of Captain Abbott and the remainder of the scouts, to maneuver west along the ridgeline and cross the canyon wherever suitable. Their tactical task was to establish an attack by fire position on the north side of the canyon and engage the Apaches western flank. Thus, enveloping the Natiotish and his men. Abbott and the flankers successfully forged the canyon’s tedious terrain and met strong resistance from Apache, attempting to flank the Army’s SBF position on the south side of the canyon. The Apache were unsuccessful because, according to Lieut. Cruse, “they were disorganized and scrambled carelessly, allowing

Abbott's men to pour bullets into them, killing and wounding several." Evidence of this fight is present in EA 7, located on the far north side of Morgan's arroyo. At this location, no casings were found. However, several .405g bullets and lead fragments were identified, lodged in the ground, and smashed against rocks. One .405g bullet was found on the western side of the arroyo. This indicates a return fire from the Apaches aimed at Abbott's men (Figure 10).

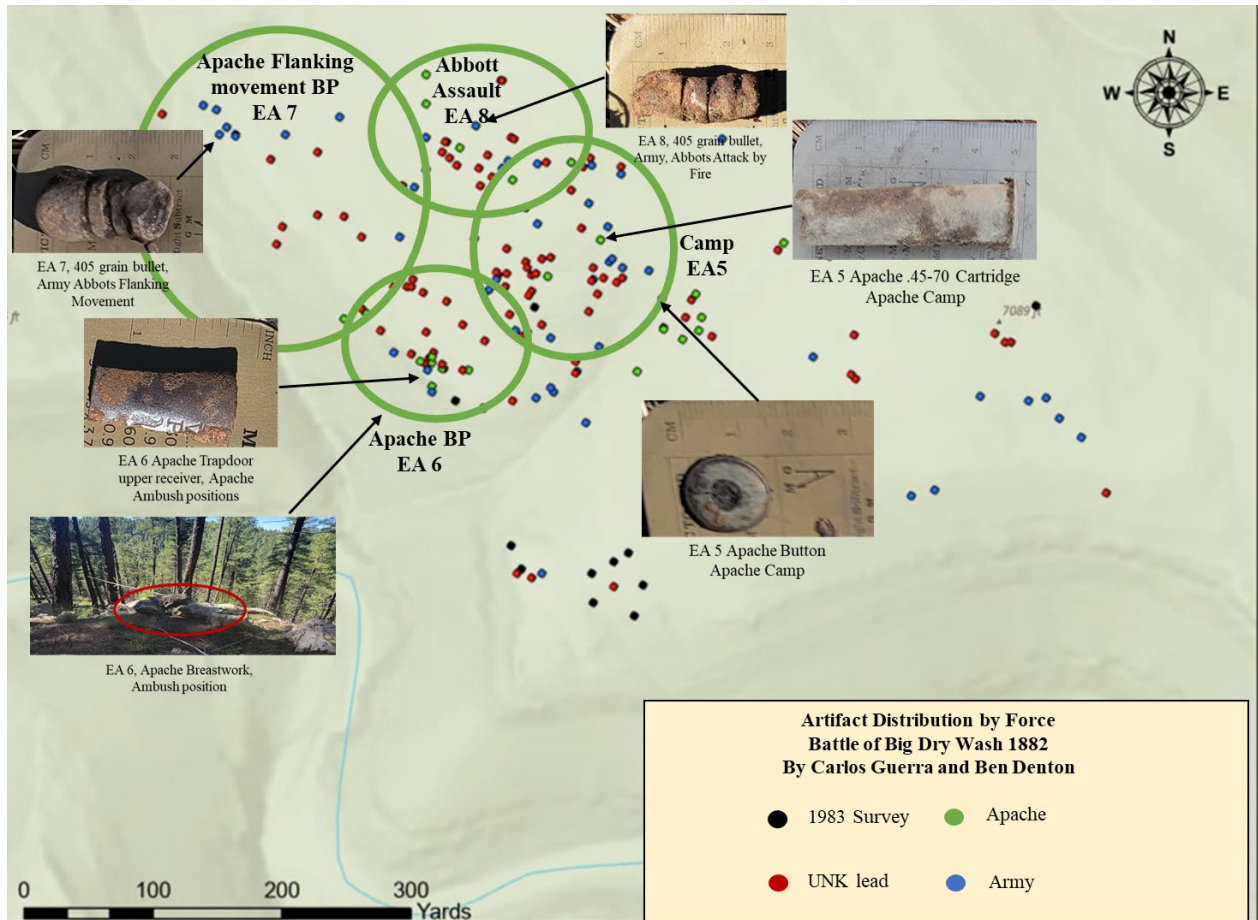


**FIGURE 13.** Artifact Distribution for Engagement Areas 1,2,3,4.

Phase II begins at this point in the battle; the Troops encircled the Apache, trapping them and forcing them to the edge of the rim into a kill zone roughly two hundred yards from the main camp—indicated by scattered blankets and cooking utensils. Lieutenant Cruse recalls the fight becoming more intense and the Apache furiously plunging, themselves forward on their heads, rolling over and over to find cover; similarly, the troopers dodged behind trees to avoid the

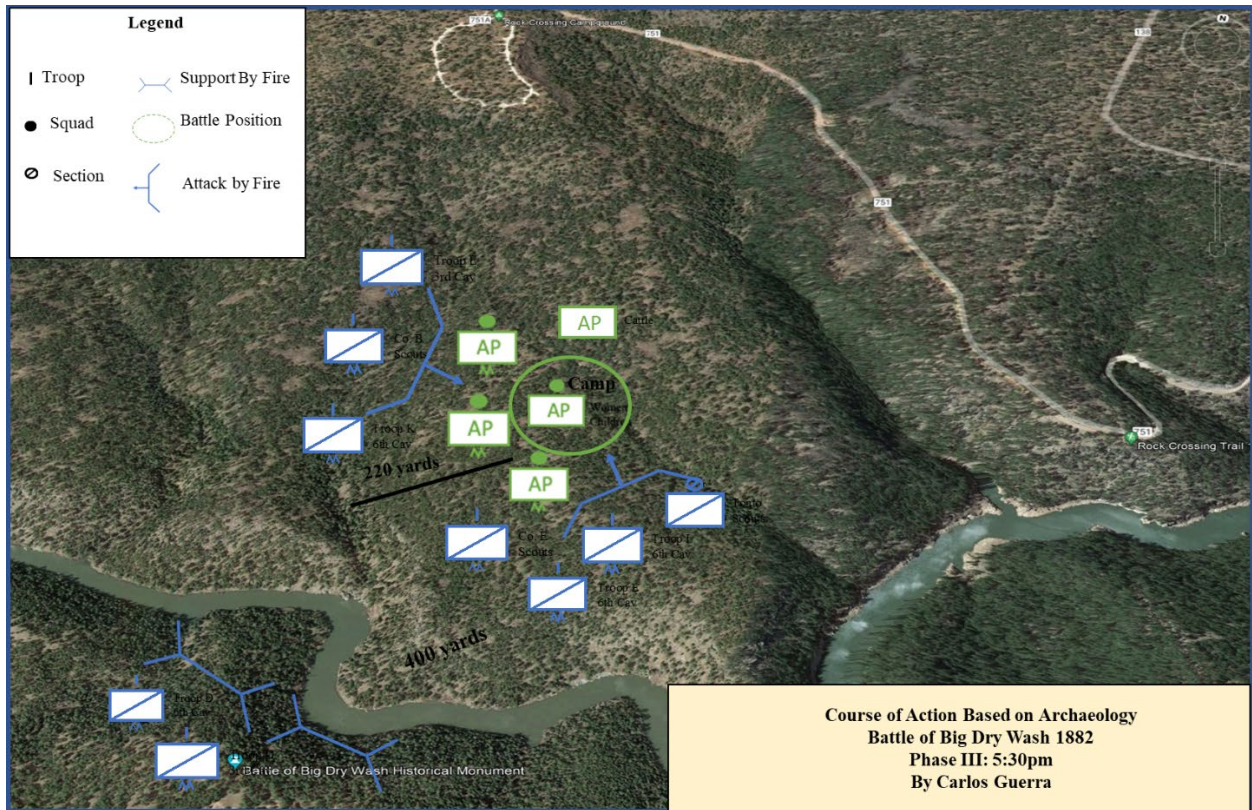
whizzing rounds hurled at them. In one instance, Cruse says that he saw an Apache shot at the rim, plunged himself over the ledge, and fell for several minutes.

EA 4 and 8 represent this fighting. As the troops near EA1 fell back to retrieve the ponies, they met heavy resistance from Cruse and West's men. Therefore, they likely attempted to cross a smaller arroyo that divides the northern section of the battlefield north and south. This area is EA 4. Archaeological evidence on both sides of this arroyo indicates that heavy fighting ensued. Here, several casings, bullets, and fragments were found on both sides of the cut. The artifacts identified on the north side likely belong to the Army, while those found on the south side belong to the Apache. Once the troopers maneuvered across the arroyo, they met heavy resistance from the Apache, who held fighting positions around the southern flank of the main camp. EA 8 is representative of Abbott's continued assault from east to southwest. Along this axis of advance Abbot and his men encountered elements of the Apache positioned north of EA 4. As the battle intensified, these warriors likely shifted fires and began establishing fighting positions along the northwestern section of the camp. Several bullet fragments, five .405g bullets, and a shell casing were found in this area, along with four shards of aqua glass indicative of a medicine bottle that Lieutenant Cruse may have expended as he administered aid to Private McLernon, who was mortally wounded. Additionally, two minié ball fragments were identified, indicating the presence of an 1863 Springfield rifle (Figure 14).



**FIGURE 14.** Artifact distribution for Engagement Areas 5,6,7,8.

Phase III began around five-thirty as the sun began to set. In a hurry to defeat the Apache before nightfall, Lieut. Despite Sieber's advice, Cruse rushed through the arroyo in EA 4 into the Apache camp. As he proceeded out of the arroyo, he and private McLellan were met by a large Apache preparing to counter the assault. One warrior fired a round three feet away from Cruse and missed killing PVT. McLellan. Cruse recalled that when the fight simmered, Lieut. He carried PVT. McLellan down an arroyo while taking heavy fire from a band of Apache. However, Capt. Abbot and his men suppressed these Apache and overwhelmed them with superior fire. Darkness followed shortly after, and hail began to fall. During this time, the remaining Apache fled the battlefield leaving behind a woman and a child (Figure 15).



**FIGURE 15.** Phase III of the Battle of Big Dry Wash.

EA 5 represents the Apache Camp. Based on the archaeological evidence, the fight likely moved to this location from all directions. Artifacts in this location indicate they faced heavy resistance as the Army continued to envelop the Apache. Metal scatter in this location included five .405g bullets, four shell casings, several bullet fragments, and two buttons.

The following morning before daylight, Lieut. Hodgson, who had just arrived at the battle, encountered the Apache woman with a smashed leg. She fired several shots at the approaching troopers, but none found their mark. The rest of the day was spent scouting the countryside for any sign of the ten or fifteen Apache who escaped the battle. There was no trace. Out of seventy-five warriors, only ten or fifteen were known to have survived and returned to the San Carlos reservation. Natiotish was found among the dead.

The material evidence found on the battlefield and the artifacts obtained by the Coconino National Forest resembles Apache resistance to U.S. occupation. The archaeology shows that the Army employed superior firepower on both canyon sides. Furthermore, they exploited the terrain to their advantage. They avoided detection to perform a successful countermobility operation that prevented Natiotish's warriors from successfully counterattacking the support by the fire element and Major Evan's reserve forces (ADP 3-0 2019:3-12). The success of this task by Abbott and the success of Sieber and the Apache scouts were critical to the envelopment and defeat of the Apache.

Conversely, the material evidence shows that Natiotish's objectives have similarities that correspond to defensive operations found in modern Army doctrine. According to ADP 3-0 (2019), three types of defensive operations include area, mobile, and retrograde. These aim to create conditions for the offense that allows a combatant to regain the initiative. Other reasons for conducting a defense are to retain decisive terrain, deny the enemy a specific area, attrit or fix an attacking force, and counter enemy action. Natiotish's use of striking and fixing forces aligns best with a mobile defense. This type of defense concentrates on destroying or defeating the enemy through a decisive attack. It uses a counterattack element and a fixing force. Moreover, it allows the enemy to advance to a point where they are exposed to a decisive counterattack after being denied mobility by the fixing force.

In the case of this battle, Natiotish fixing force established battle positions along the ridgeline in hopes of canalizing Chaffee's Troops into an ambush. When the engagement began early, Natiotish likely believed he fixed Chaffee's men on the south side of the canyon, prompting him to instruct his warriors to form a counterattack force and assault Chaffee's troopers on the south side of the canyon. However, this plan failed because Natiotish could not recognize the disposition of Army Troops.

## *Conclusions*

The Apache Wars constituted the most prolonged military engagement in the history of the United States. From the beginning to the end, it mobilized entire populations, including vast economic resources, for wholesale slaughter and the continued pursuit of power, dominance, and coercion (Vandkilde 2003:126). Thus, I propose that the Apache Wars fought against the U.S. from 1862 to 1882 were asymmetrical and evolved as a form of resistance to colonial oppression and failed military strategies. Moreover, they occurred to protect the existence of the Apache people. Evidence for this study was found by answering three crucial questions. First, how did the colonial entanglement with the Spanish and Mexicans lay the groundwork for the Apache Wars? Second, how did the Apache war shape Apachería, and was it justifiable? Finally, how does the Battle of Big Dry Wash represent Apache resistance?

Apache resistance to colonial authority was a justifiable means to evade the genocidal policies of three imperial powers. For over three hundred and fifty years, they fought vigorously to maintain their livelihood, beginning with the oppressive rule of the Spanish in the 16<sup>th</sup> century and later the Mexican Empire at the beginning of the 19<sup>th</sup> century. These two powers were vital to the creation of an Apache diaspora. The loss and death of kin to the slave trade, neverending warfare, and pacification policies created a collective memory among the Apache people that would carry over to U.S. occupation.

When the U.S. acquired land from Mexico under the Treaty of Guadalupe Hidalgo in 1844 and later the Gadsden Purchase of 1854, they acquired the totality of the American Southwest. Like the Mexicans before them, they could not exert the necessary power or infrastructure to

colonize the territory entirely. Instead, they focused their efforts on the insidious notion of manifest destiny that interwove racial and Christian ideals to exploit resources and continue the practice of trying to rid the Apache of the land. What ensued was a war that took place in two phases marked clearly by two policies: extermination and reservations. These two policies were intricate in evolving Apache resistance and shaped the American Southwest under the Just War theory; the Apache maintained a moral justification to go to war and use elements of asymmetrical warfare. Because the U.S. government inadvertently extended the state's rights to the Apache through negotiations and identity, they also extended the right to defend themselves.

Physical evidence of warfare can confirm or deny actions on a battlefield, bring to life the human experience of war, and tell a story beyond historical accounts. This analysis incorporated the four steps of IPAB as a methodology to understand better the physical evidence identified at The Battle of Big Dry Wash. This method, along with metal detecting technology, depicted the Army and Apache's ability to mass fire and employ their forces in a tactically sound manner. Moreover, it proves that the legacy of this battle stands as the last significant engagement between the U.S. Army and the Apache in the Arizona territory, ending nearly three hundred and fifty years of Apache resistance to colonial occupation.

Like so many subjugated peoples before them who rebelled against their oppressors, the Apache were met with overwhelming military forces and imperial policies that saw them in chains; Foucault (1979) asks an important question, "Is it useless to revolt?" On the surface, this question can hold patronizing undertones that fall flat to anyone whose never experienced life under the thumb of colonial rule. They, like most, would presume to say "yes." Foucault argues that revolt is necessary; without it, subjectivity and agency would fail to be brought into history. Nevertheless, anticolonial rebellions are rarely unambiguous in either victory or defeat, and most conducted by

indigenous people are considered failures by Eurocentric standards. However, like in traditional warfare, it is not a matter of who wins but who loses less. History shows that even the most successful revolts were streaked with setbacks. At the same time, those brutally suppressed sometimes provided the impetus for future gains (Liebmann 2012:8). The philosopher, Louis Althusser, suggests that resistance such as this is “overdetermined.” These social upheavals result from a combination of heterogeneous factors, not one of which can be isolated as the single cause of the rebellion.

Considering Foucault's question, I propose an alternative, more pertinent question to the Apache Wars. Is it morally just to revolt? The analysis of this paper suggests that it would be immoral not to. The initial push by the Spanish Empire to colonize New Spain throughout the 17<sup>th</sup> and 18<sup>th</sup> centuries entangled the Apache into a state of diaspora. Continuous warfare, the slave trade, and Apache de Paz programs all resulted in the Apache loss of kin, pacification, and eradicating their collective memory and ties to the land, which intensified under Mexican occupation. During this unrest, the Mexican government's lack of power and resources to maintain peace generated further conflict that would foster a lasting hatred between both parties. The Battle of Big Dry Wash is an example of Apache resistance. The remaining physical evidence provides evidence of the human experience of warfare and the last major battle of the Apache Wars. Moreover, it exemplifies the will of a few warriors to fight against unfavorable odds.

## *References Cited*

- Adams, Christopher D., Diane E. White, and David M. Johnson. 2000, Dark Canyon Ranchería Apache/Military Battle Site. United States Department of Agriculture.
- Army, United States. 2019, *Intelligence Preparation of the Battlefield*. Vol. ATP 2-01.3. Headquarters, Department of the Army.
- Army, United States. 2019, *Offense and Defense*. Vol. ADP 3-90. Headquarters, Department of the Army.
- Arkush, Elizabeth N., Allen, Mark W. 2008, *The Archaeology of Warfare: Prehistories of Raiding and Conquest*. University Press of Florida.
- Babcock, Matthew. 2016, *Apache Adaptation to Hispanic Rule*. Cambridge University Press.
- Barrett, S.M. 1996, *Geronimo His Own Story: The Autobiography of a Great Patriot Warrior*. Meridian.
- Barns, Will C. 1931, The Apaches' Last Stand in Arizona. *Arizona State Historian (Phoenix, AZ)*.
- Ball, Eve. 1970, *In The Days of Victorio*. The University of Arizona Press Tucson.
- Basso, Keith H. 1971, *Western Apache Raiding and Warfare*. The University of Arizona Press.
- Bleed, Peter, and Douglas D. Scott. 2011, Contexts for Conflict: Conceptual Tools for Interpreting Archaeological Reflections of Warfare. *Journal of Conflict Archaeology* 6(1): 42–64.
- Bourke, John G. 2010, *An Apache Campaign in the Sierra Madre: An Account of the Expedition in Pursuit of the Chiricahua Apaches in Arizona, 1883*. Leonaur.
- Buchanan, Kimberly Moore. 1986, *Apache Women Warriors*. Texas Western Press.
- Colwell-Chanthaphonh, Chip. 2003, Western Apache Oral Histories and Traditions of the Camp Grant Massacre. *American Indian Quarterly* 27(3 & 4): 639–666.
- Carman, John. 2005, Battlefields as Cultural Resources. *Post-Medieval Archaeology* 39(2): 215–223.
- Césaire, Aimé. 1972, *Discourse on Colonialism*. Monthly Review Press.
- Cheater, Angela. 1999, *The Anthropology of Power*. Routledge.

- Conrad, Paul. 2021, *The Apache Diaspora: Four Centuries of Displacement and Survival*. University of Pennsylvania Press.
- Cozzens, Peter. 2001, *The Struggle for Apaheria: Eyewitnesses to the Indian Wars 1865-1890*. Vol. 1. 5 vols. Stackpole Books.
- Davis, Britton. 1976, *The Truth About Geronimo*. University of Nebraska Press.
- Darling, J. Andrew, and B. Sunday Eiselt. 2017, Aquí Me Quedo: Vecino Origins and the Settlement Archaeology of the Rio del Oso Grant, New Mexico. In *New Mexico and the Pimería Alta: The Colonial Period in the American Southwest*, edited by John G. Douglas and William Graves, pp. 187–212. University Press of Colorado, Boulder.
- Dubik, James M. 2016, *Just War Reconsidered: Strategy, Ethics, and Theory*. University Press of Kentucky.
- Dye, David H. 2015, Conflict and War, *Archaeology of Behavior and Social Organization*. International Encyclopedia of Social & Behavioral Sciences 4:600–606.
- Fabre, Cecile. 2008, Cosmopolitanism, just war theory and legitimate authority. *International Affairs* 85(5):963–976.
- Farrow, Edward S. 2000, *Mountain Scouting: A Handbook for Officers and Soldiers on the Frontiers*. University of Oklahoma Press.
- Fearon, James D., and David D. Laitin. 2003, Ethnicity, Insurgency, and Civil War. *American Political Science Review* 97(1):75–90.
- Galula, David. 1964, *Counterinsurgency Warfare Theory and Practice*. Praeger Security International.
- Gat, Azar. 1999, The Pattern of Fighting in Simple, Small-Scale, Prestate Societies. *Journal of Anthropological Research* 55(4). [https://www-jstor-org.:563–583](https://www-jstor-org.:563-583).
- Jones, Seth G. 2017, *Waging Insurgent Warfare: Lessons from the Vietcong to the Islamic State*. OXFORD University Press.
- Hall, Mark David., and Charles, Daryl J. 2019, *America and the Just War Tradition: A History of U.S. Conflicts*. University of Notre Dame Press.
- Hutton, Paul. 2016, *Apache Wars: The Hunt for Geronimo, The Apache Kid, and the Captive Boy Who Started the Longest War in American History*. Crown Publishers.
- Isenberg, Andrew C., Richards, Thomas Jr. 2017, Alternative Wests: Rethinking Manifest Destiny. *Pacific Historical Review* 86(1): 4–17.

- Kelly, Raymond C. 2000, *Warless Societies and the Origin of War*. The University of Michigan Press.
- Kessel, William B. 1974, The Battle of Cibecue and Its Aftermath: A White Mountain Apache's Account. *Ethnohistory* 21(2): 123–134.
- Kilcullen, David. 2009, *The Accidental Guerrilla: Fighting Small Wars amid a big one*. OXFORD University Press
- Kress, M., and I Talmor. 1999, A New Look at the 3:1 Rule of Combat through Markov Stochastic Lanchester Models. *Palgrave Macmillan Journals on Behalf of the Operational Research Society* 50(7): 733–744.
- LaBlanc, Steven A. 2003, Prehistory of Warfare. *Archaeology*.
- Lahti, Janne. 2017, *Wars for Empire: Apaches, The United States, and The Southwest Borderlands*. University of Oklahoma Press.
- Lebovic, James H. 2019, *Planning to Fail: The US Wars in Vietnam, Iraq, and Afghanistan*. Oxford University Press.
- Liebmann, Matthew. 2008, The Innovative Materiality of Revitalization Movements: Lessons from the Pueblo Revolt of 1680. *American Anthropologist* 10(3): 360–372.
- Liebmann, Matthew, and Melissa Murphy. 2010, Rethinking the Archaeology of 'Rebels, Backsliders, and Idolaters.' Santa Fe: School for Advanced Research.
- Lockwood, Frank C. 1938, *The Apache Indians*. University of Nebraska Press.
- Ludwig, Larry. 2016, *Archaeological Findings of the Battle of Apache Pass, Fort Bowie National Historic Site*. Unpublished Natural Resource Report, Fort Bowie National Historic Site.
- McLachlan, Sean. N/A, *The Apache Scouts: The History and Legacy of the Native Scouts Used During the Indian Wars*. Charles River Editors.
- McWilliams, John P. 2017, Geronimo Called Wife Huera "The Bravest of Apache Women": She Fled Mexican Captivity and Fought Off a Mountain Lion En Route to Her Apache Homeland. *Wild West*:28–29.
- Meise, Michael R. 1998, The Battle of Big Dry Wash: Arizona's Last Great Apache Fight. *The Journal of Arizona History* 39(1):23–48.
- Meise, Michael R. 1988, *The Battle of Big Dry Wash*. Northern Arizona University.

- Moquis, Kastiilam, and the Trauma of History. In *New Mexico and the Pimería Alta: The Colonial Period in the American Southwest*, edited by John G. Douglas and William Graves, pp. 239–262. University Press of Colorado, Boulder.
- Morkevcsues, Valerie. 2015, Power and Order: The Shared Logics of Realism and Just War Theory. *International Studies Quarterly* 59:11–22.
- Muller, Edward N. 1987, Inequality and Insurgency. *American Political Science Review* 81(2):425–452.
- Opler, Morris E., and Harry Hoiyer. 1940, The Raid and War-Path Language of the Chiricahua Apache. *American Anthropologist* 42(4):617–634.
- Price, Maribeth H. 2020, *Mastering ArcGIS Pro*. First. McGraw and Hill Education.
- Schram, Peter. 2019, Managing Insurgency. *Journal of Conflict Resolution* 63(10):2319–2353. DOI:[10.1177/0022002719832963](https://doi.org/10.1177/0022002719832963).
- Sweeney, Edwin R. 1998, *Mangas Coloradas: Chief of the Chiricahua Apaches*. University of Oklahoma Press.
- Roberts, David. 1994, *Once They Moved Like the Wind: Cochise, Geronimo, and the Apache Wars*. Touchstone.
- Scott, Douglas D., and Fox, Richard A. 1987, *Archaeological Insights into The Custer Battle: An Assessment of the 1984 Field Season*. University of Oklahoma Press.
- Scott, Douglas D., McFeaters, Andrew P. 2011, The Archaeology of Historic Battlefields: A History and Theoretical Development in Conflict Archaeology. *Journal Archaeological Resources* 19: 103–132.
- Sheridan, Thomas E., and Stewart B. Koyiyumptewa. 2017, Moquis, Kastiilam, and the Trauma of History. In *New Mexico and the Pimería Alta: The Colonial Period in the American Southwest*, edited by John G. Douglas and William Graves, pp. 239–262. University Press of Colorado, Boulder.
- Smit, Ziga. 2016, Archery by the Apaches-implications of using the bow and arrow in hunter-gather communities. *Documenta Praehistorica* 43.
- Smith, 2012, *Imperialism, History, Writing and Theory*
- Smith, Steven D., and Clarence Geier R. 2019, *Partisans, Guerillas, and Irregulars: Historical Archaeology of Asymmetric Warfare*. The University of Alabama Press.
- Stahel, Albert A. 2004, Dissymmetric Warfare Versus Asymmetric Warfare. *Intl. Trans. in Op* 11: 435–446.

- Thrapp, Dan L. 1964, *Al Sieber Chief of Scouts*. University of Oklahoma Press.
- Thrapp, Dan L. 1967, *The Conquest of Apacheria*. University of Oklahoma Press.
- Terrell, John U. 1972, *Apache Chronicle*. World Publishing.
- Vandkilde, Helle. 2003, Commemorative tales: Archaeological responses to modern myth, politics, and war. *World Archaeology* 35(1):126–144.
- Vayda, Andrew P. 1976, *War In Ecological Perspective*. Plenum Press, New York.
- Waltz, Kenneth N. 2018, *Man, the State, and War: A Theoretical Analysis*. Anniversary Edition. Columbia University Press.
- Walzer, Michael. 2015, *Just and Unjust Wars: A Moral Argument With Historical Illustrations*. Fifth. Basic Books.
- Watt N., Robert. 2002, Raiders of the Lost Art? Apache War and Society. *Small Wars and Insurgencies* 13(3):1–28.
- Watt, Robert. 2012, *Apache Tactics: 1830-1886*. Osprey Publishing Ltd.
- Weiner, Allen S. 2017, Just War Theory & the Conduct of Asymmetric Warfare. *The Changing Rules of War* 146(1): 59–70.
- Welch, John R., Colwell, Chip. 2005, Retracing The Battle of Cibecue: Western Apache, Documentary, and Archaeological Interpretations. *The Journal of Southwestern Archaeology and History* 71(2): 133–163.
- Williams Jr., Robert E., and Dan Caldwell. 2006, Jus Post Bellum: Just War Theory and the Principles of Just Peace. *International Studies Perspectives* 7:309–320.
- Worcester, Donald E. 1979, *The Apaches Eagles of the Southwest*. First. University of Oklahoma Press.

