Ambushed at Dawn: An Archeological Analysis of the Catastrophic Defeat of the 1720 Villasur Expedition

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AMBUSHED AT DAWN:
AN ARCHEOLOGICAL ANALYSIS OF THE CATASTROPIC DEFEAT OF THE
1720 VILLASUR EXPEDITION

by

Benjamin J. Bilgri

A THESIS

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In August of 1720, a Spanish expedition of more than one hundred soldiers, settlers, and Native American allies was destroyed by a group of Pawnee Native Americans at the confluence of two rivers in Nebraska. The precise location of the battlefield has been the subject of debate over the past century, and a systematic archeological investigation to attempt to locate and study the remains of the battle had never been conducted. In order to determine the most likely engagement location and allow an archeological survey of the battlefield site, the author conducted a multifaceted study of the campaign. This included an examination of the available primary sources, including a surviving portion of an expedition member’s diary, for information on the force’s composition, armaments, and route to Nebraska. The Segesser II painting, an artwork on animal hides depicting the final battle of the Villasur Expedition, was also examined to shed light on the battlefield’s location, the arms and armor of the combatants, and the possible participation of French soldiers in the engagement. A geospatial analysis of possible marching routes of the campaign resulted in the determination of the route Villasur likely followed to Nebraska, as well as the probable location of the battle. A crew of University of Nebraska, Platte County Historical County, and volunteer personnel then conducted a metal detector survey in March of 2011 to the southeast of Columbus, Nebraska, revealing that fluvial
action of the Platte River over the intervening centuries had most likely disrupted any battlefield artifacts once present in the survey area. However, the areas with the highest probability to contain battlefield-related artifacts could not be accessed during this search effort. Though the survey recovered no physical remains from the battle, the overall investigation of the Villasur Expedition proved invaluable in characterizing the engagement area and the composition of the archeological assemblage associated with the battle, and contributed to the study of the archeology of catastrophic military defeats.
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Chapter 1

Introduction

At dawn on August 14, 1720, a Spanish military expedition of more than one hundred soldiers, settlers, and Native American allies was destroyed in an attack by Pawnee Native Americans at the junction of two rivers in eastern Nebraska. Under the command of lieutenant-general Don Pedro de Villasur, the Spanish force had departed New Mexico in the middle of June, in search of information about reported French incursions into the Great Plains, nominally considered by Spanish authorities to be part of the nation’s colonial empire. The survivors, including roughly a dozen Spanish soldiers and a somewhat larger number of Native American allies, arrived back at the New Mexican provincial capital of Santa Fe in early September (Thomas 1935). The site of the campaign’s destruction marked the most northerly point that any Spanish colonial military force would reach, and the debacle ended any attempts by Spanish governmental authorities to exert their influence upon the Great Plains. Though New Spain as a colonial entity would endure for nearly a century after the battle, the Plains would be left to their Native American inhabitants and the influence of the French.

Even viewed from a purely historical perspective, the Villasur Expedition was a significant event. The abandonment of the Great Plains to the French allowed that nation’s expansion of settlement and influence in the region to continue uninhibited. Before France’s loss of virtually the entirety of its mainland North American possessions to the British at the end of the French and Indian War, the district of Louisiana (that included Nebraska and much of the Great Plains) was ceded to Spain in the 1762 Treaty of Fontainebleau (McKee 1974). Though Spain would remain in possession of the
restored territory for nearly four decades, it only belatedly took over governmental control, and the development and further expansion of settlement into the region was kept to a minimum. Ultimately, Napoleon I pressured Spain into returning the territory to France in the early years of the nineteenth century, who then almost immediately sold it to the United States in the Louisiana Purchase of 1803, in order to obtain funds for the continuing wars on the European continent (McKee 1974). Had Villasur’s campaign not met such a disastrous end in Nebraska in 1720, the future territorial evolution of the United States may have been quite different.

In addition to the expedition’s historical importance, the Villasur battle site represents an untapped archaeological resource. The precise location of the battlefield has been the subject of debate for more than a century, and a systematic archaeological investigation to attempt to locate, study, and interpret the material remains of the battle had never been conducted. The emergence of battlefield archeology as an active subdiscipline in recent decades has stimulated the development of survey methodologies and interpretive techniques that have shed new light on many conflicts previously known only through historical records. When the accounts of participants are used to reconstruct a battle narrative, these unavoidably fragmentary perceptions of a chaotic environment are often contradictory. This being the case, the investigation of conflict sites from an archeological perspective facilitates an objective interpretation of events based upon recovered artifacts. More specifically, the Villasur engagement represents a catastrophic military defeat in which the Spanish force was completely dispersed, definitively ending the originally-planned campaign, and an examination of the archeological patterning
produced by such an outcome will contribute to the further understanding of this very specific type of military encounter.

This work relates the results of such an archeological investigation into the Villasur Expedition. The Spanish campaign of 1720 is uniquely suited to study through an archeological approach, as the gaps in the historical accounts are large and the course of the battle itself is vague. In order to ultimately determine the most likely location of the engagement and allow an archeological survey of the battlefield site, the author conducted a multifaceted study of the expedition.

The material culture of the campaign ultimately was deposited in Nebraska as a result of strategic decisions made by the New Mexican government, in some cases decades before. Therefore, a full understanding of the political motivations for and the execution of the 1720 expedition should be achieved before considering the archeological remains of the campaign, and necessitates its examination from a strategic, operational, and tactical perspective. Chapter 2 explores the strategic background of the Villasur Expedition in a brief overview of the history of the colonial province of New Mexico. Situated on the extreme northern frontier of Spanish possessions in the Americas, the province was relatively weakly defended, as the majority of conflicts between European rivals in North America took place among the economically lucrative colonies of the Caribbean Sea, North American eastern seaboard, and Saint Lawrence River valley (Kessell 2002; Marston 2002). After the Pueblo Revolt of 1680, the military endeavors of New Mexico were confined to frontier holding actions and reactionary expeditions to address perceived threatening developments beyond the northern borders (Kessell 2002; Silverberg 1970; Thomas 1935). As a part of this larger strategic context, the Villasur
Expedition was a reconnaissance venture to obtain more information on possible French threats to Spanish dominance of the Great Plains.

The third chapter provides an historical overview of the 1720 campaign, with an emphasis on the immediate political stimuli leading to the expedition, its organization and armament, and an account of the operational activities of the expedition and its final destruction based on the available primary sources. Reports of encroaching French military forces sent by governors on the Spanish frontier were almost certainly exaggerated when compared with known French military strength within their colonial empire, but France and Spain were enmeshed in the War of the Quadruple Alliance in Europe during the years before Villasur’s departure and the desire for further reconnaissance in this political environment is understandable. The events of the final week before the destruction of the expedition are based upon survivors’ testimony, as well as a fragment of a diary kept by a member of Villasur’s force that was discovered in Paris archives in 1921. Tactical knowledge of the course of the battle in survivors’ accounts is limited, and provided further impetus for a detailed archeological investigation.

Chapter 4 presents the results of a computerized geospatial analysis of the marching route followed by the Villasur Expedition, a necessary prelude to delineating an archeological search area by eliminating the ambiguities about the battle’s location. The primary point of contention that has resulted in disagreements over the precise route taken by the campaign from Santa Fe to Nebraska is the location of an Apache pueblo known as El Cuartelejo. This pueblo has alternately been believed to be in western Kansas or eastern Colorado, and which location a given researcher chooses to support has
major implications for the ultimate site of the battle itself. Determining the location of the battle is based upon geographic descriptions provided in the Villasur diary fragment coupled with stated marching distances and directions. The comparison in this chapter of routes proposed by multiple researchers was enabled by the ability of computer geospatial analysis to accurately provide a progressive aggregation of marching distances over a given route. The analysis led to the definitive conclusion that the Kansas location for El Cuartelejo is correct, and that the final battle of the expedition took place at the confluence of the Platte and Loup rivers near the present-day location of Columbus in eastern Nebraska.

The destruction of Villasur’s force is distinct from many other military engagements in that an artistic depiction of the battle on animal hides has survived, and was likely based upon the testimony of those who were present and escaped the engagement. As discussed in Chapter 5, the detailed examination of this painting indicated that its artistic depictions of the armor, weaponry, and soldiers of the Spanish force are highly accurate, lending confidence to its depiction of battlefield events and providing another source through which conclusions about the battle’s archeology may be bolstered. The presence of uniformed French soldiers in the painting is not supported by the historical evidence of French military activities in the region, and these individuals may have been included in the painting for political purposes. French traders were possibly present at the battle, however.

The sixth chapter provides a detailed account of the delineation of an archeological search area near Columbus, Nebraska and the results of a metal detector survey conducted there in March of 2011. The same geospatial techniques utilizing marching
distances provided in the Villasur diary fragment as in Chapter 4 were used to determine the likely location of the 1720 battle site. The channels and point of confluence of the Platte and Loup rivers have evolved in the three centuries since the engagement, but an examination of prior studies investigating these changes concluded that the actual location of the Platte/Loup confluence in 1720 roughly coincided with the battle position indicated by the geospatial analysis. A likely battlefield site having been determined, a field crew composed of University of Nebraska, Platte County Historical Society, and volunteer personnel conducted a metal detector survey in the section of the search area for which permission to investigate had been obtained. The results of the survey indicated that fluvial action of the Platte River over the intervening centuries had most likely disrupted any battlefield artifacts once present in the surveyed areas. However, the regions with the highest probability to contain battlefield-related artifacts could not be accessed during this search effort.

Chapter 7 begins by examining anecdotal accounts of possibly Villasur-related Spanish artifacts being recovered in Nebraska, most of which are without merit. Five ceramic olive jar fragments excavated from a historic Native American site in eastern Nebraska likely originate with the expedition, however. The remainder of the chapter builds upon work conducted at other battlefield sites to develop a model of the likely state of the archeological record at the Villasur battlefield. The destruction of the expedition is an example of a catastrophic military defeat, in which the losing force completely dissolves as an effective fighting unit in a battle’s aftermath. The archeological signature of these types of defeats includes artifact patterns that illustrate the progressive loss of command and control during a battle, culminating in the collapse
of coordinated resistance as a unit and the fleeing of soldiers as individuals. Post-battle
looting processes after a catastrophic defeat result in a battlefield that begins as unusually
rich in dropped and discarded weapons and materiel almost completely denuded of large
items, leaving only small fragments of artifacts and musket balls, bullets, and cartridge
cases from the discharging of firearms to mark battle events. Previous studies of the
archeology of battlefield collapse and salvage activities have been conducted at Little
Bighorn Battlefield National Monument in Montana, and at the site of the largest military
defeat ever suffered by Imperial Rome in northwest Germany. The consideration of these
prior investigations in the context of the Villasur Expedition allows a model of the
Villasur archeological assemblage to be proposed.

A reexamination of the 1720 Spanish campaign was long overdue. As briefly
mentioned above, the expedition had never been considered from an archeological
perspective. Indeed, even many of the historical questions had remained unresolved,
including the route followed by Villasur from Santa Fe to Nebraska and the precise
location of the battle. This work addresses these historical ambiguities in the process of
developing a coherent archeological survey, and builds upon prior investigations to
develop a model of potential artifact distributions at the Villasur site. The use of modern
geospatial technologies allowed the rapid comparison of different Villasur routes that had
been proposed in the past, definitively demonstrating that a Kansas El Cuartelejo location
and Platte/Loup battlefield site are the positions most consistent with what is known of
the expedition’s movements based upon surviving contemporary documents. Yet the
study of the campaign is of most importance to the subdiscipline of battlefield archeology,
as it represents an opportunity to further develop models of battlefield behavior and
characterize the archeological differences in combat assemblages over time. The pages that follow build upon the investigations that have come before, but are intended to elaborate on the history and archeology of the Villasur Expedition in much greater detail than has been heretofore possible.
Chapter 2

The Strategic Context of the Villasur Expedition

A consideration of the historical and strategic background of the Villasur expedition is an essential prelude to any analysis of the force’s archeological remains. Far from taking place in an historical vacuum, the expedition was mounted in an environment of international tension and sporadic warfare between Spain and France. Villasur’s march was only one in a series of military expeditions into the Great Plains conducted by the colonial authorities of New Spain in the early decades of the eighteenth century as a response to perceived French encroachments upon Spanish territory.

This chapter provides an overview of the strategic origins of the 1720 campaign within the framework of a history of the colonial province of New Mexico. Beginning with the expedition of Don Juan de Oñate into the Great Plains in 1601, the New Mexican government repeatedly implemented a policy of reactionary military ventures to forestall any French threat, real or perceived, to the region. This policy was rooted in New Mexico’s position on the extreme northern frontier of New Spain and consequent poor supply situation and weak defenses. As the farthest-reaching and ultimately final venture in this protective colonial policy, an understanding of the purposes of Villasur’s march requires an overview of this background information.

Furthermore, the specific route of Villasur’s advance owed much to the earlier northern expeditions of Juan de Ulibarrí and Antonio de Valverde Cosío; their goals and experiences influenced the objectives and hybrid Spanish military/allied Native American organization of the 1720 force. An elaboration of the historical background of the campaign therefore illuminates the strategic motivations, intentions, and actions that
eventually resulted in the remains of Villasur’s expedition entering the archeological record in eastern Nebraska.

**Initial Explorations and Conflicts**

Don Juan de Oñate was granted a contract by the Spanish crown in 1595 which allowed him to organize and equip a group of two hundred soldiers and their families and a large quantity of livestock and supplies, and establish a permanent European settlement in what is today New Mexico. Other groups had marched north beyond the borders of New Spain in the past (including the famous march of Francisco Vásquez de Coronado beginning in 1540 and an unauthorized expedition by Gaspar Castaño de Sosa in 1590-91), but Oñate’s expedition would be the first one to establish a permanent outpost in the future American Southwest (Hammond 1952; Kessell 2002; Silverberg 1970).

A great deal of difficulty was to be encountered in the organization of Oñate’s party. The initial 1595 contract was agreed upon between Oñate and the New Spain viceroy Luis de Velasco without much contention (Hammond 1952). Reports of encroachment by foreigners had prompted a desire by Spanish authorities to further secure their northern borders, which may have influenced the speed of these initial negotiations (Thomas 1935). The agreement outlined the composition of Oñate’s group, the provisions and military equipment which would accompany it and the compensation in land, money, and authority Oñate would receive for extending the dominion of the King of Spain. Velasco even provisionally agreed to a political arrangement in which Oñate reported directly to the Council of the Indies, which would essentially make the land under his command an autonomous political entity separate from Mexico (Hammond 1952). Unfortunately for
Oñate, Velasco was replaced as viceroy by Gaspar de Zúñiga Acevedo y Fonseca in late 1595, and the latter delayed the final approval of the expedition until the provision for Oñate’s autonomy was significantly modified (Beck 1962; Hammond 1952; Kessell 2002). This is perhaps understandable, as the existing stipulations of the original contract would limit the viceroy’s authority over any newly-colonized northern lands, but the resultant delay would last several years, despite a recommendation by Velasco that the expedition be allowed to proceed (Hammond 1952).

Two major themes may be observed in the planning for the Oñate expedition that recur multiple times in the following centuries, and have direct bearing on the political motivations resulting in the later Villasur expedition. Oñate’s march was intended to serve two basic purposes: to bring additional territory and material wealth under the control of New Spain, and to further secure the northern frontier of Spanish territory against incursions by Spain’s European rivals. The former motivation may be seen at work in the American Southwest as early as Coronado’s 1540-1542 expedition in search of the famous “Seven Cities of Gold” of mythology (Brandon 1990; Kessell 2002; McKee 1974), and it would remain a major driver of contracted expeditions for at least the following two centuries (Kessell 2002). The desire for military security enjoyed similar longevity, but its nature was distinctly different.

While territorial expansion was actively pursued on multiple occasions (Kessell 2002; Silverberg 1970; Thomas 1935), officially-ordered military expeditions to secure the frontiers were both more sporadic and much more reactionary. This may be explained by the low priority given to military preparedness on the North American mainland in general, when compared with the resources allocated to Spain’s colonies in the Caribbean.
Sea. By the eighteenth century, fewer than one thousand soldiers would be stationed in all of present-day northern Mexico and the southwestern United States (Santiago 1996), fewer still in New Mexico itself. Furthermore, European powers would often engage in formal warfare in their colonial possessions as well as in the Old World, these engagements being considered a more limited theater of the overall conflict (Kessell 2002). During periods of peace, then, it was politically advantageous to refrain from mounting military expeditions with a colony’s (sometimes very limited) resources, unless the potential gain was both substantial and likely. When an official military force was deployed in northern New Spain (as opposed to an expedition under contract), it would virtually always be in response to a threat real or perceived, rather than as an aggressive expansionist venture in its own right (Kessell 2002). These themes will be explored in more detail later, but are introduced here to illuminate both the motivations of the Spanish colonial authorities and the reasons why expeditions to expand colonial territory were often conducted via contract rather than under official auspices.

The specific threats which may have provided an impetus to Oñate’s being awarded his 1595 contract were naval raids conducted by Francis Drake and other English mariners near the mouth of the Gulf of California, along with reports that foreign missionaries and traders had begun approaching the northern borders of Spanish-claimed territory. The English raids formed part of the Anglo-Spanish War, an undeclared conflict that grew out of English intervention on the continent in the French Wars of Religion (Knecht 2002). Though this sporadic conflict was far removed from the North American colonies, the English were following the aforementioned pattern of colonial raiding activities when hostilities commenced between the antagonists’ parent countries. Given
this geopolitical context, a Spanish journey of colonization to investigate reports of large silver deposits up the Rio Grande River (Beck 1962; Thomas 1935) would serve the dual purpose of the acquisition of resource-rich territory and the establishment of a protective bulwark against the putative foreign traders and missionaries. It is feasible that the very favorable rights of autonomy granted to Oñate in his original 1595 contract could have been due to a desire on the part of viceroy Velasco to mount this expedition as soon as possible in a climate of political tension; his successor Fonseca may have assessed the threat to be less urgent.

After modifications to the contract that afforded Oñate a lesser degree of autonomy, the main expedition left Santa Bárbara in northern New Spain (located in the modern-day state of Chihuahua, Mexico) in January of 1598, after experiencing some difficulty in assembling the full complement of settlers. Crossing to the east bank of the Rio Grande River slightly under fifty kilometers downstream from the present-day location of El Paso, Texas, Oñate proceeded upstream into New Mexico after performing a formal ceremony near the river on April 30, 1598 to symbolize the acquisition of the new province (Beck 1962; Kessell 2002; Thomas 1935).

The composition of Oñate’s group clearly underscored its dual purposes as both a journey of colonization and a military expeditionary force. Roughly two to four hundred colonists marched north in Oñate’s initial group and a second wave followed two years later, many married and with children. They were accompanied by an indeterminate number of soldiers. Thousands of cattle, sheep, goats, and horses were intended to provide the newly-founded colony with an abundance of portable food and transportation resources. This massive train of animals (along with eighty-three wagons filled with
equipment and maize and wheat for agricultural use) was forced to disperse and travel in a lengthy convoy during the march in order to allow watering holes to replenish between stops (Beck 1962; Hammond 1952; Kessell 2002). Oñate’s April ceremony had taken place after the majority of the expedition had finally assembled at the Rio Grande, and the journey to the north along the river was presumably undertaken in a similar manner. It was not until the founding of the first permanent European settlement in New Mexico that the secondary military role of the expedition would come into play, undoubtedly due at least in part to the difficulty of fielding a mobile force while simultaneously trailing a mass of vulnerable supplies and civilians.

Oñate had been in sporadic communication with the Native Americans inhabiting the pueblos he passed, but was in prolonged contact with none until San Juan Bautista was established near the Tiwa Native Americans’ Ohke Pueblo in present Rio Arriba County in northern New Mexico. This first capital, located at the junction of the Rio Chama and Rio Grande Rivers, would later be moved west to San Gabriel and finally about forty kilometers south to Santa Fe in 1610 (Beck 1962; Kessell 2002).

The relationship between Oñate and the native Puebloan peoples became contentious almost immediately. The primary purpose of the colonizing expedition (to determine the locations of the rumored silver and gold resources in the area and begin their extraction) became evident at once when Oñate began sending out soldiers to the neighboring pueblos to search for promising ore and obtain the allegiance to Spain of the local populations (Beck 1962; Bolton and Marshall 1920; Kessell 2002; McKee 1974). These activities were accompanied by the dispersal of friars and missionaries into the surrounding territories to begin the religious conversion of the Puebloan peoples to
Roman Catholicism. Proselytism consistently formed a part of Spanish colonial ideology from the sixteenth through the eighteenth centuries, and was a product of the political and religious perspectives emerging from the *Reconquista* of the Iberian Peninsula from the Muslims of Al-Andalus, completed at the end of the fifteenth century. The advent of the North American colonial era so soon after the completion of this process provided a venue for the continuation and flourishing of a crusading ideology; the noble mission of spreading Christianity could go on (Kessell 2002).

These proselytizing endeavors and the requisition of supplies by Oñate’s soldiers resulted in the rebellion of Acoma Pueblo against Spanish control in late 1598, and in January of 1599 Oñate pacified the pueblo by executing hundreds of the inhabitants (Beck 1962; Kessell 2002). After several years of fielding exploratory groups and military scouting parties to establish control of the region, Oñate then engaged in a larger eastward expedition into the Great Plains in the summer of 1601. His force marched east along the Canadian River, crossing it multiple times, until turning northeast at the Antelope Hills near the border of Texas and the Oklahoma Panhandle. Reaching central Kansas, Oñate returned the way he had come in November of 1601 (Schroeder 1962; Vehik 1986).

This journey appears to have been motivated almost exclusively by the desire to search for precious metals in the region known as Quivira, a Wichita settlement in central Kansas in which Coronado had hoped to retrieve similar prizes (Beck 1962; Brandon 1990; Kessell 2002; McKee 1974; Schroeder 1962; Vehik 1986). His exploratory ventures to this point had yielded no significant quantities of silver or gold, and Oñate’s return to the Quivira area was an attempt to demonstrate that the newly-claimed territory
had some mineral wealth to contribute to the coffers of New Spain. The war with the Acoma and the delay in acquiring natural resources had also resulted in substantial rates of desertion; by the time Oñate returned from Kansas empty-handed, all but twenty-five colonists had left to return south (Beck 1962; Brandon 1990; Kessell 2002). Although reports of foreign traders encroaching upon Spanish territory had perhaps provided an impetus for the initial organization of the expedition, it appears as though Oñate’s response to this threat, if any, was to passively collect information as to the nature of these threats when it presented itself. In none of the available sources is there a suggestion that any of the groups sent out in the period 1598-1601 were intended to search for the presence of other Europeans, and the departure of Oñate himself for the east with a contingent of seventy to one hundred soldiers in 1601 (Beck 1962; Brandon 1990) implies that he perceived no imminent threat to San Juan Bautista. Though foreign incursions into Spanish territory ultimately proved illusory in this case, the recurring fear of their presence would ultimately result in the mounting of several more military expeditions, including Villasur’s ill-fated venture.

The expedition of Don Juan de Oñate has only a tertiary relationship to the political causes of the Villasur expedition of more than a century later, but it is eminently useful in illustrating the conduct of and motivations for an exploratory march beyond the borders of Spanish-controlled territory. The potential for military events in continental Europe to spill over into North America, along with the desire for Spanish colonial authorities to forestall any attempt by foreigners to gain influence in what was perceived to be Spanish territory, would be repeated in the following centuries. Despite the poor condition of San Juan Bautista at Oñate’s return from his fruitless foray into Kansas and his later
prosecution due to his perceived mishandling of the expedition, the new province of Santa Fe de Nuevo México would expand over the following decades, until the continuing policy of proselytism would result in a rebellion much more severe than that encountered at Acoma.

The Pueblo Revolt and Aftermath

The Pueblo Revolt of 1680 was a product of Spanish proselytism and attempts to suspend established Puebloan religious practices, and was exacerbated by the inability of the attenuated military forces in the region to present an effective defense. The process of attempting to convert Native American peoples to Christianity, as discussed above, formed a part of conventional Spanish colonial ideology, carried over from Spain itself after comprising a portion of the united military effort of the Reconquista. The low military priority given to New Mexico compared with other frontiers of New Spain was a consequence of the region’s dearth of mineral resources and its position on the extreme northern border of Spain’s American empire (Figure 2-1). Central America as a whole was accorded a lower level of importance than the Caribbean in Spanish military planning due to frequent conflicts with nearby French and English colonies in the latter area, and fewer soldiers were stationed in New Mexico itself than on most other fronts in Central America. There simply was no pressing strategic reason to engage in anything other than a holding action on the New Mexican frontier (Beck 1962; Slatta 1998; Kessell 2002).

At the time of the Pueblo Revolt, there were no presidios yet established in New Mexico. These military bases, the home of permanent garrisons and typically fortified
against assault, would eventually number twenty-two along the entire northern fringe of New Spain from Texas to California (Jones 1966; Scholes 1935). At its peak in the eighteenth century, the entire network would still comprise less than a thousand men, and in 1680 the number of permanent soldiers available to New Mexico Governor Antonio de Otermin was only thirty-five. These were citizens who were paid by the province in exchange for their taking command of combined Spanish/Native American militia units during periods of military necessity (Jones 1966; Scholes 1935).

![Figure 2-1. New Spain’s borders in North America, ca. 1600. New Mexico’s exposed position at the empire’s extreme northern border is evident. These geographical realities would later cause major difficulties for supply in general and military logistics in particular (Williams 2004:7).](image)

The proselytizing activities of Franciscan friars and missionaries were not consistently supported by the state, however. Religious authorities stationed in the pueblos were generally vocal in their opposition to the kachina dances performed as a part of Puebloan religious tradition, but the extent to which the dances were restricted
varied considerably according to the political views of the incumbent governor of New Mexico. The coordination of a comprehensive Native American policy in this regard throughout the viceroyalty of New Spain was made extraordinarily difficult by Santa Fe’s position at the extreme northern fringe of the domain, nearly 2,500 kilometers from Mexico City (Jones 1966; Knaut 1995; Scholes 1935; Silverberg 1970). The labor provided by the Puebloan peoples was a major driver of the New Mexican economy, and this provided a powerful argument for diplomacy (Jones 1966; Knaut 1995). In 1660, Governor Bernardo López de Mendizábal removed standing prohibitions against the performance of kachina dances in the pueblos, as part of a larger campaign to restrict the power of the church in political matters (Knaut 1995).

Sporadic droughts in the late 1660s and 1670s made survival in an already marginal environment even more difficult, and the conditions prompted population migrations to areas with convenient access to mission storehouses. The increased stress upon limited resources resulted in outbreaks of violence, and the thinly-stretched militia forces quickly found themselves unable to cope, given their limited manpower (Knaut 1995). The problems caused by the climatic variability were compounded by a change in the equally variable attitude of the New Mexican government to traditional Puebloan cultural practices. Governor Juan Francisco Treviño arrested dozens of Puebloan medicine men in the late 1670s and ordered the execution of several, as well as severely restricting the use of kivas (underground ritual chambers) (Knaut 1995; Silverberg 1970). The continual attempts to suppress Puebloan cultural practices and the ongoing environmental stresses finally resulted in an organized attempt to drive the Spaniards from New Mexico.
The most prominent leader of the 1680 revolt was a medicine man known as Popé from Ohke pueblo, who may have been one of those imprisoned. He coordinated an uprising involving dozens of pueblos, the simultaneous revolt of which on August 10, 1680 was organized by runners ensuring swift communication between the communities involved. The initial stages of the Pueblo Revolt saw more than half of New Mexico’s Franciscan friars killed, along with hundreds of colonists. Militia units that were able to muster numbered only a few hundred and were quickly overwhelmed. The survivors of the outlying settlements retreated to Santa Fe, which remained under siege for nearly two weeks before the entire population abandoned the town and marched south. The whole of New Mexico would revert to Puebloan control for nearly twelve years, with Popé playing a leading role in the administration of the regained region. The eventual fate of the medicine man remains unknown (Beck 1962; Kessell 2002; Knaut 1995; Silverberg 1970).

The retaking of New Mexico in 1692 was less a reconquest than it was a reoccupation. Diego de Vargas, a member of Madrid nobility, undertook the northward journey at his own expense with the understanding that he would be appointed governor of the newly-reclaimed territory. Vargas was accompanied by soldiers from the presidios of Parral and El Paso del Norte and about 100 Native Americans from nearby pueblos, the entire group leaving El Paso on August 16, 1692 (Beck 1962; Jones 1966; Silverberg 1970). Upon arriving at Santa Fe without major incident, Vargas was able to secure the transfer of the city back to Spanish control without bloodshed. Far from being the united front they had been during Popé’s revolt of 1680, conflict between the pueblos had increased during the intervening years, and many may have considered Spanish rule as representing the lesser
of two evils (Silverberg 1970). Vargas obtained verbal oaths of allegiance from the majority of the pueblos that had rebelled in exchange for pardons from retribution for acts performed during the Revolt, and promises of less future interference in matters of Pueblo culture. Though renewed episodes of violence against Spanish rule would occur in the following few years (most notably a brief second loss of Santa Fe in 1693), none of these incidents were as widespread as those of 1680, and most resistance had ended by the turn of the century (Beck 1962; Jones 1966; Kessell 2002; Knaut 1995; Silverberg 1970).

In the context of the military history of Spanish New Mexico in general and the Villasur Expedition in particular, the Pueblo Revolt of 1680 illustrates two important points. First, it is another example of the reactionary nature of Spanish military activities in the American Southwest. As discussed above, New Mexico was at the extreme northern fringe of a region which was itself considered of tertiary military importance among Spain’s New World possessions. When smaller North American theaters of larger European wars opened between the colonies of the great powers of Europe, these conflicts often occurred in the Caribbean due to the economic importance of many of the islands in the area, and the diplomatic actions of European nations would underline the importance of protecting these locations. For example, in the 1763 Treaty of Paris that ended the Seven Years’ War between Spain, France, and Great Britain (along with its North American theater known as the French and Indian War), France was willing to cede virtually the entirety of French lands in Canada and the future United States to Great Britain, in exchange for retrieving the small Lesser Antillean islands of Guadeloupe and Martinique. In this case, sheer territorial size was more than compensated for by the
islands’ importance to the sugar trade, a prime source of revenue for France (Marston 2002). Though Mexico provided Spain with the majority of its gold and silver resources, the concentration of military activity in the Caribbean and the importance of Cuba’s port facilities in transferring Mexico’s wealth across the Atlantic Ocean necessitated that the point of Spain’s military spear also be situated among the islands of the Greater and Lesser Antilles. This grand strategic balance of power had been in place since the 1555 sack of Havana (Slatta 1998), and would remain for much of the eighteenth century.

The significance of these policies for New Mexico was that because Mexico received fewer military resources than the Caribbean, the province itself was accorded even less, situated as it was on the extreme northern frontier (Slatta 1998). As discussed above, the resources of New Mexico were considered to warrant nothing more than a holding action against foreign incursion, and the available militia troops would allow little else at any rate. New Mexico was chiefly utilized as a buffer zone at the northern edge of New Spain, and the proselytizing of the local Puebloan communities facilitated the formation of alliances to achieve this end. The original colonization of New Mexico by Oñate was partially sparked by news of foreign missionaries and traders moving south toward Spanish territory (Thomas 1935). This event would begin a pattern of Spanish military activities in the north being a reaction to other developments, rather than an effort to expand the frontiers further. Indeed, the retaking of New Mexico by Vargas in 1692 (after the Spaniards’ allowing twelve years of Puebloan rule) was partially a response to French advances from the Mississippi River (Slatta 1998).

The course of the Pueblo Revolt, being as it was partially a product of the state of Spanish military preparedness in New Mexico, thus begins to explain the why of the
Villasur Expedition. As we will see, Villasur’s march to the north would again be in response to an external stimulus, rather than as a journey of conquest. But a second point that the Pueblo Revolt helps in illuminating is how such expeditions were organized, this also being information of major significance in 1720, as well as for the contemporary archeologist who wishes to analyze the composition of the material remains of Villasur’s force.

Mounting a military operation in colonial New Mexico was difficult for a variety of reasons already explored, but one of the greatest obstacles to overcome was a problem of sheer numbers. With the province possessing so few soldiers for so much of its history, the leader of an offensive expedition had to obtain more troops by some means in order to both operate a mobile force and leave a sufficient garrison behind to protect New Mexico itself. Vargas solved this problem by recruiting Native American warriors from the pueblos around El Paso del Norte (Silverberg 1970), and this practice would be followed by future military leaders. This, then, is why more than fifty percent of Villasur’s 1720 party would be comprised of Pueblo and Apache Native American allies. As a consequence, the disposition of the archeological remains of the Villasur expedition will reflect not only a European manner of waging war, but also the tactics employed by Villasur’s Native American allies.

**Ulibarrí and Valverde**

The final military expeditions which should be briefly considered to achieve a full understanding of the context of the Villasur Expedition are those of Juan de Ulibarrí and Antonio de Valverde Cosío. Ulibarrí left Santa Fe in July of 1706, ordered by New
Mexico Governor Francisco Cuervo y Valdés to investigate reports that ostensibly stated that dozens of Christianized Puebloan individuals were being refused permission to leave a settlement known as El Cuartelejo by the Plains Apaches that resided there (Kessell 2002; Thomas 1935). Valdés was anxious to maintain his heretofore good relations with the Pueblo Native Americans of New Mexico (although it is possible that the Native Americans whose freedom was in question had deliberately left the Spanish sphere of influence some ten years before), and the opportunity this incident presented was one of the reasons for Ulibarrí being dispatched (Gunnerson 1984; Witty 1983). Ulibarri’s force of about 140 soldiers, militiamen, and allies reached El Cuartelejo in August and was able to secure the release of the Pueblos without violence, leaving the El Cuartelejo Apache in an equable mood toward the Spanish (Kessell 2002; McKee 1974).

The precise location of El Cuartelejo is of some significance for determining the route followed by Villasur in 1720, as will be seen. Ulibarri’s expedition is chiefly notable, however, for the illustration of continuity of Spanish policy it provides. Aside from the diplomatic opportunities the journey offered Valdés, the mounting of an expedition to the north at this juncture was apropos for another reason: international relations between Spain and France had soured in recent years. The two countries were currently embroiled in the War of the Spanish Succession (which would not be resolved until 1714), and there had been word of the French trading with the Plains Apaches (Jones 1966; Kessell 2002; McKee 1974; Thomas 1935). Though the voyage was not intended to be a punitive expedition to assert Spanish control in a disputed border region, Ulibarrí made a point to summarize his search for information about the French in his official report of the expedition. The Apache showed the Spanish a musket which they had obtained (possibly
from a white man), and repeatedly claimed that the French were supplying their Pawnee enemies with firearms. A note in the margins of Ulibarri’s report notes that “it is supposed that the Pawnees and French are united” (Thomas 1935:70).

Finally, more than seventy percent of Ulibarri’s force was comprised of Pueblo Native American allies, with only forty Spanish soldiers and militiamen being present (Jones 1966; Kessell 2002). Once more, this was a necessity because of New Mexico’s paucity of military resources, and once more the shortfall was taken up by recruiting Native American warriors. Thus, Ulibarri’s expedition to the north illustrated again the two primary characteristics of Spanish offensive operations on the northern fringe of the empire: action being prompted by an external stimulus (in this case a request from their Native American allies and the rumored activities of the French), and the force being comprised of a combination of Spanish soldiers and Native American warriors (the latter frequently outnumbering the former).

Thirteen years later, acting New Mexico Governor Antonio de Valverde Cosío did embark on an intended punitive expedition, leading an exceptionally large force of at least 600 soldiers (the vast majority of whom were Native American allies) and 850 horses against the Comanches and Utes, who had been raiding settlements on the northern frontier (Jones 1966; Kessell 2002; Thomas 1935). Though the War of the Spanish Succession had ended in 1714, conflict with France was once again underway, the War of the Quadruple Alliance having begun in 1718. Given this state of affairs, another motivation for Valverde’s expedition was to obtain current intelligence on the activities of the French near New Mexico’s borders (Folmer 1939).
Leaving Taos on September 20, 1719, Valverde’s force largely followed in Ulibarri’s footsteps, marching east and then north until reaching the Arkansas River in present-day southeastern Colorado. Despite the intention of the expedition, no Comanche or Ute forces of significant strength were encountered. Though not reaching El Cuartelejo itself, Valverde met and obtained information from the Cuartelejo Apaches, whom he met on the south bank of the Arkansas River in late October (Folmer 1939; Kessell 2002; Thomas 1935). These Apaches told Valverde that the French had been in further contact with the Pawnees, and had built two pueblos greater in area than Taos. In these settlements the French “live[d] together with the said Pawnees…to whom they [had] given long guns which they [had] taught them to shoot” (Thomas 1935:132), according to Valverde’s diary of the campaign. One Apache had also apparently taken part in a fight against the French and their Native American allies, and was still recovering from a wound in the abdomen (Dunn 1915; Thomas 1935). Upon hearing this information, Valverde reiterated his support of the Apaches and declared that he would destroy the French presence in the region. This destruction, however, would have to wait for a future expedition; it being late in the campaign season, Valverde reversed direction and returned to Santa Fe by the end of November of 1719 (Kessell 2002; McKee 1974; Thomas 1935).

Valverde’s journey to the north maintained the pattern we have established; his large force was made up largely of Native American warriors, and the timing of his offensive action was related to the external stimuli of Comanche and Ute raids and the ever-present threat of the French at a time of war in Europe. The route taken by both Ulibarri and Valverde is also important, in that Villasur would follow in the steps of his predecessors during the early portion of his journey. Overall, an understanding of the history of
Spanish military activities in New Mexico is critical for a comprehensive overview of the Villasur Expedition. Its organization and very existence was the product of long-standing behavioral patterns on the part of the Spanish, and the disposition of the expedition’s archeological remains is partially the result of decisions made as a result of its operating under particular political circumstances. This context in place, we can now examine Villasur’s campaign in more detail.
Chapter 3

A History of the Villasur Expedition

Pedro de Villasur departed Santa Fe on June 16, 1720 with a force comprised of Spanish soldiers and citizens, Pueblo Native American allies, and a number of ancillary personnel. Both the organization of the expedition and the reasons for its being dispatched were in keeping with the established Spanish military doctrine on the New Mexico frontier explored in the previous chapter. Yet the Villasur Expedition was distinct from those that came before, in that it would penetrate much farther north and east than any military force departing northern New Spain in the past (even when compared with Coronado’s journey of nearly two centuries past). Its end was remarkable as well; not only did the events of mid-August 1720 represent the greatest military defeat ever experienced by the Spanish on the Great Plains, but they would end all ambitions the authorities of New Spain may have had to unequivocally establish the Plains as being part of the Spanish sphere of political influence.

Within the context of this investigation, the historical overview provided in this chapter is important to understand the immediate strategic imperatives that resulted in the expedition being dispatched, the operational and tactical activities performed by Villasur’s men over the course of the campaign, and what is known about the battle from the information provided by survivors’ accounts. The onset of the War of the Quadruple Alliance in Europe and the attempt by French traders to illicitly conduct business with Spanish colonists in the years before the expedition once again exacerbated tensions with the French, and letters from frontier governors to Mexico City underline the fresh fears of encroachment that stimulated Villasur’s departure. This chapter also examines, however,
the actual French military situation along the Mississippi River, illustrating that the Spanish fears were likely illusory.

This chapter’s narrative of the expedition’s march is derived primarily from information provided by the available primary sources. Alfred Barnaby Thomas (1935) has done much important work in translating Spanish archival documents into English, including letters between the viceroy of New Spain in Mexico City and various frontier provincial governors, and the testimony of survivors of the expedition who had made their way back to Santa Fe. The historical information provides a foundation upon which later geospatial and archeological interpretations are built, and the conclusions derived about the battlefield archeology of the engagement are later compared with these historical accounts.

**Motivations for a New Expedition: French Threats Real and Illusory**

The warnings of French expansionist activities that New Mexico acting Governor Antonio Valverde y Cosío had received from the Apache near El Cuartelejo in 1719 have already been outlined in the previous chapter. Upon his return to Santa Fe, Valverde wrote to the current viceroy of New Spain Baltasar de Zúñiga y Guzmán on November 30, 1719, informing him of the information he had gathered. The main settlement of the French, as well as the two large pueblos greater in size than Taos, New Mexico, was believed to be located on “a very large river which here is known as the Jesús María” (Thomas 1935:144). The Jesús María was the colonial Spanish name referring to the Platte River (including its tributary South Platte River) in northeastern Colorado and
Nebraska (Hadley et al. 1997), and Valverde therefore had a destination toward which to
target his next military campaign.

The belief among many that such a campaign should be considered sooner rather than
later is evident in a letter from the governor of Parral (in the future northern Mexican
state of Chihuahua) to New Spain Viceroy Zúñiga y Guzmán, dated the same November
30, 1719. In this letter, the Parral governor informed the viceroy that he was preparing for
an approach by professional French military troops to the borders of Spanish-controlled
Texas, possibly by both land and sea. This threat was all the more serious because the
troops available to the governor were only just sufficient to address the existing unrest on
the borders. In order to bolster the defenses of the province, the governor requested
additional guns, powder, and musket balls, and pointedly noted that the effectiveness of
the troops and their equipment was directly related to their being promptly paid in cash
each month (Thomas 1935).

It is important to note, however, that while the fear of French encroachment on the
northern borders of New Spain was in itself nothing new, the actual threat presented was
typically much less formidable than was often perceived. As we have discussed,
officially-sanctioned military expeditions did take place on the borders of European
colonies whenever the political climate between the relevant parties shifted (Janin 2006).
Yet these conflicts were most intense in areas where the antagonists had much to gain or
lose, such as the Caribbean or the highly-populated border between New France and the
New England colonies at the Saint Lawrence River (Marston 2002). New Mexico was
situated on the border between Spanish and French territory, but these were the extreme
fringes of both empires. New Mexico served as a buffer zone between the richer Spanish
lands to the south and the threat of hostile Native Americans or Frenchmen to the north, while the western edges of France’s sphere of influence past the Mississippi River were used for little more than trading activities.

Spain had a monopoly on internal trade within its North American possessions, and as a result there was little incentive and few opportunities for the production and sale of high-quality merchandise. Logistics were also a problem; while the transportation of goods in the interior of New Spain was almost exclusively by road in all areas, Santa Fe and Taos were once again the victims of their geography, being located across an exceptionally arid region at the end of a network of often poorly-maintained roads (Folmer 1941; Kessell 2002). In sharp contrast, at the western edge of New France merchandise was in much greater supply, thanks in no small part to the ease of transport along the Mississippi River from Mobile and other ports on the Gulf of Mexico (Folmer 1941).

With the proximity of such an untapped market, there were thus many French traders for whom merchandise-carrying expeditions to Spanish territory held many attractions. The Spanish colonists of New Mexico, for their part, were not altogether opposed to trading with foreigners, despite their government’s policy to the contrary (Folmer 1941). It was this very paucity of material wealth and quality merchandise, then, that made New Mexico attractive for French traders, while simultaneously presenting a less-than-spectacular target for the thinly-spread French military forces along the Mississippi River.

In 1714, the governor of the French district of Louisiana dispatched a trader by the name of Juchereau de St. Denis to New Mexico with goods valued at 10,000 livres, in an attempt to ascertain whether profitable commerce could be opened with the resident
Spanish colonists. Departing from Mobile, St. Denis reached a Spanish settlement on the Rio Grande River in late summer, and then lived among the Spaniards until the viceroy of New Spain ordered him to be sent to Mexico City in the following summer. St. Denis and the viceroy (the Duke de Linares at this time) developed surprisingly amicable relations; after a year in Mexico City involving discussions about the supposed pro-Catholic sentiments among the Tejas tribes he had passed en route, Linares allowed St. Denis to depart with the profits from his trading, sending with him nine missionaries to leave with the Tejas Native Americans during his return. St. Denis eventually arrived back at Mobile in August of 1716 (Folmer 1941; John 1975).

Encouraged by this initial success, St. Denis set up a trading company in Louisiana, and then departed Mobile a second time in October 1716 with goods worth more than four times that of his original cargo. His reception on this second journey would be less enthusiastic. Upon reaching New Spain in April of 1717 his goods were confiscated, and St. Denis was imprisoned after traveling to Mexico City to appeal to the viceroy (Folmer 1941; John 1975). Unfortunately for the French entrepreneur, the viceroy by this time was no longer the Duke de Linares; in the time that St. Denis had been in Louisiana, Zúñiga y Guzmán had begun his six-year tenure. Zúñiga y Guzmán brought with him a change in policy toward participants in contraband trade, though this stance would prove controversial with the missionaries among the Tejas, who valued St. Denis’ rapport with the tribes in the region (John 1975).

St. Denis would eventually escape from Mexico City in 1718 and return to French territory, having ultimately made a profit from his second trading expedition. In the end, however, Spanish authorities considered a moratorium on business transactions with
French traders to be indispensable to maintaining Spain’s economic monopoly. The ability of the French to sell their goods up to fifty percent cheaper would make conventional Spanish means of supply unsustainable on a level playing field (Folmer 1941; John 1975). This official Spanish government position (which would persist for much of the early and mid-eighteenth century) nevertheless did little to halt the demand for cheaper and highly quality merchandise among the colonists of the northern fringes of New Spain. Groups of French traders thus continued to do business with both the colonists themselves and Native American tribes nominally residing within Spanish territory, though these trading activities would continue to be viewed as contraband (Folmer 1941; John 1975).

There was, then, a legitimate reason in the fall of 1719 to fear French encroachment upon Spanish borders, but the nature of these incursions was somewhat different than what may initially come to mind. The presence of both the motivation for a profit on the part of the French and a ready market in the form of Native American tribes and Spanish colonists made illicit trading parties all too willing to stray beyond the northern borders of New Spain. The sparse military presence in the region (already discussed in the previous chapter) and sporadic Spanish conflict with hostile Native American groups made effective border control impossible.

The threat presented by the French military was quite different. The regular military presence in New France comprised a number of independent companies, nominally under the control of the French Ministry of the Navy and referred to as the Compagnies franches de la Marine. By the time of the beginning of the French and Indian War in 1754, a total of thirty independent companies existed, consisting of fifty men each, giving
the entirety of New France a total official complement of 1,500 soldiers. This official tally was short 500 men at the outbreak of war, however, and would only decrease as the conflict progressed, leaving barely one thousand men to defend a frontier stretching from Newfoundland, west down the St. Lawrence River, around all five Great Lakes, and south along the Mississippi River to New Orleans and Mobile (Chartrand 2004; Marston 2002). These mid-century numbers can be expected to have been even lower in 1720, especially along the Mississippi and Missouri Rivers, whose settlement by the French was in its infancy in the early years of the eighteenth century (John 1975). The troops were posted as small garrisons in a scattered string of forts, built along the waterways that represented the primary means of transportation within the interior of the North American continent (Chartrand 2004; Marston 2002).

Chapter 2 explored the military importance of the Caribbean to European powers relative to the frontiers of the interior, and here again we may observe the concentration of military forces and population that reflected the political priorities of the time. At the 1754 commencement of the French and Indian War, nearly 90% of New France’s entire European population (and the vast majority of the independent military companies) was concentrated along the St. Lawrence River in Montreal, Québec, and other towns. Louisiana had five to six thousand inhabitants on the Gulf coast, and roughly two thousand people were scattered along the Missouri and Ohio Rivers (Chartrand 2004:8). Once again, with the foundation of Mobile having been in 1702 and New Orleans only in 1718 (Bolton and Marshall 1920; John 1975), this relative distribution of population can be expected to have been even more biased in favor of the St. Lawrence urban centers in 1720. The French military presence in the interior of North America was quite similar to
that of the Spanish in northern New Mexico and Texas, with relatively few numbers of troops being used in the most effective way possible by being scattered along a frontier in small clusters stationed in forts or presidios (Chartrand 2004; Slatta 1998). There were few economic resources present along the Mississippi River or in New Mexico that were considered to be worth fighting over by either the Spanish or French governments (Beck 1962; Kessell 2002; Slatta 1998).

Given this state of affairs, the November 30, 1719 letter to Viceroy Zúñiga y Guzmán from the governor of Parral warning of the supposed approach of the French may be seen in a new light. It remains very plausible that illicit French trading expeditions were conducting business along the northern border. As was noted above, demand for contraband goods remained high in the years after the expulsion of St. Denis, and the possession of European merchandise by Native Americans with whom the Spanish had not done business would be clear evidence of these activities. An assault against Texas or New Mexico by regular French military units, on the other hand, was considerably less likely, being argued against by the lack both of military objectives and the major concentrations of either nation’s colonial soldiers.

This was a time of war, however. The War of the Quadruple Alliance, having been initiated by Spain in the efforts of King Philip V to reclaim Sardinia and Sicily in Italy (that had been lost in the preceding War of the Spanish Succession), had begun in 1718 and would not end until 1720. Spain’s antagonists in this conflict with possessions bordering New Spain included both France and Great Britain, and the war had already reached Spain’s colonial empire at the time of the governor of Parral’s letter. The settlement of Pensacola in Florida had been captured by the French in May of 1719, and
would change hands twice more before peace was declared. Spanish raids against British-held Nassau in the Bahamas would take place the following year (Bolton and Marshall 1920; Griffen 1959). In light of these events (and the news of large French settlements near New Spain’s northern borders brought back by Valverde), it is entirely understandable that concern about French attack pervaded diplomatic correspondence during the period.

Yet it is telling that all of the above assaults took place on the coast, and either in or near the Caribbean, the military importance of which to the European powers has already been established. The ease of movement of naval forces over water allowed a more rapid concentration of military power in a vulnerable area than was typically possible with land units that often required the transport of large logistics trains over a poor road network. In their capture of Pensacola, the French were thus able to apply their available naval units to good effect, in an area where they could conceivably defend any territorial gains that they made. With the sparse French infantry presence in interior New France as a whole, and along the Mississippi and Missouri Rivers in particular, any military gains of territory would have been exceptionally difficult to defend, not least because the advance would have left the base fort from which the assault originated far to the rear.

The improbability of such an organized attack from the interior was unknown to Spanish authorities at the time, however, and governmental missives repeatedly illustrate the ongoing concern over French movements. The governor of Parral wrote a second time to Viceroy Zúñiga y Guzmán on December 11, 1719. In this letter, the governor informs the viceroy that a soldier from New Mexico had delivered intelligence indicating that six thousand Frenchmen were present at a distance of seventy leagues from Santa Fe (Dunn
The Spanish legua legal in official use at the time was 4.2 kilometers in length (Chardon 1980a), so the report indicated that a force roughly four times the size of the entire French infantry establishment in all of New France was closing on New Mexico from only 293 kilometers distant. The governor of Parral asked Zúñiga y Guzmán whether he had any confirmation of this intelligence, but in the light of the new report compounded with his letter about the other French threats only two weeks earlier, the governor increased his requests for additional weaponry and ammunition (Dunn 1915; Thomas 1935). The report of six thousand Frenchmen near Santa Fe was undoubtedly spurious, but is an excellent illustration of the climate of rumor and tension during this time of war.

**Final Decision for a Reconnaissance Expedition**

The two letters from the governor of Parral were forwarded to the New Spain auditor of war in late December, who reviewed them and concluded that while the governor’s report of six thousand Frenchmen was inaccurate, when taken in conjunction with Valverde’s report from his 1719 expedition, some degree of French activity on the frontier was likely taking place (Dunn 1915; Thomas 1935). The auditor noted in the margins of his opinion that “the French are continuing to fortify themselves in the neighborhood of New Mexico” (Thomas 1935:149).

This assessment having been made, a three-pronged response to the threat was decided upon (Brandon 1990; Dunn 1915; Thomas 1935). First, Valverde’s proposed follow-up expedition to the north should be made; second, a presidio with twenty to twenty-five soldiers and a mission with two or three priests should be established among
the El Cuartelejo Apache; and third, the Apache should be converted to Catholicism and an alliance established with them to such an extent that they could be used as an “auxiliary in those parts for defense” (Thomas 1935:150). The auditor of war, acknowledging the inability of the official Spanish military establishment in the region to defend against a major attack, was proposing the use of the Apaches as a buffer between the French and New Mexico, much as New Mexico itself had served as a buffer between hostile Native Americans and the rest of New Spain in the time of Oñate. The presidio and mission were eventually intended to be supplemented by a civilian settlement, effectively expanding the border of New Spain north by more than 480 kilometers. The viceroy, having approved of the auditor’s recommendations, officially ordered governor Valverde to proceed on January 10, 1720 (Dunn 1915; Thomas 1935).

Valverde, for his part, generally approved of the expedition. Having received the viceroy’s dispatch in March, he replied on May 27 with a suggestion that the new mission and presidio be established instead among the Apaches in an area known as La Jicarilla, northeast of Santa Fe but much closer than El Cuartelejo (McDonald 1982; Thomas 1935). La Jicarilla was situated on the Las Vegas Plateau to the east of the Sangre de Cristo Mountains in northeastern New Mexico (Figure 3-1), and was a region home to a number of Apache groups (McDonald 1982). Its advantages over El Cuartelejo as the site of a new Spanish settlement were many. Perhaps most important was its ability to be supported logistically by Santa Fe in times of need. El Cuartelejo, being located over 480 kilometers from the existing frontier, would be extremely vulnerable to envelopment, its twenty to twenty-five soldiers being completely isolated from any sort of practical rapid-
response assistance from the south during a military crisis. Valverde was aware of this, and suggested La Jicarilla as a more sustainable and appropriate location for expansion.

Figure 3-1. Map of northeastern New Mexico and eastern Colorado in the early eighteenth century. Note the relative locations of the La Jicarilla and El Cuartelejo regions to Santa Fe, which greatly influenced their defensibility as potential presidio locations (McDonald 1982:41).

The region held other advantages, as well. Its geographical location immediately to the east of the Sangre de Cristo Mountains made it an ideal corridor for travel from the Great Plains to the settled areas around Santa Fe. Travelers moving between the two regions would often skirt the eastern edge of the mountains and swing west after passing their southern end, approaching Santa Fe from the east. Indeed, both Ulibarri in 1706 and Valverde in 1719 used this route when departing from and returning to New Mexico (McDonald 1982), and therefore Valverde was likely aware of its advantages as a defensive position. Any attacker approaching Santa Fe from the plains to the north would
likely travel through La Jicarilla in order to avoid the difficult terrain of the mountains, and could be halted or slowed by a Spanish military post in the area.

Finally, the important objective of establishing a buffer zone against the French of pro-Spanish Native Americans could also be served in the La Jicarilla location. Valverde had engaged in some proselytizing activities while passing through the area in 1719, and had received a favorable reaction (McDonald 1982). More importantly, the resident La Jicarilla Apache had undergone increasing pressure in the early eighteenth century from hostile groups of Ute and Comanche, who were moving south from the Great Plains. These conflicts had caused the La Jicarilla settlements to concentrate more closely together for mutual protection, and in the circumstances the prospect of security offered by a permanent Spanish presence held significant attractions (John 1975; McDonald 1982).

Valverde’s assessment of the ideal site at which to establish the presidio and mission was approved in a council of war at Santa Fe on June 2, 1720, and forwarded to Mexico City for consideration on June 15 (Thomas 1935). A final decision on this matter would have to await the results of the new expedition, however, for the letter of June 15 was dispatched the day before Villasur left Santa Fe.

**Composition and Equipment of the Villasur Expedition**

The Villasur Expedition was explicitly intended as a reconnaissance campaign. In his May 27 letter to the viceroy, Valverde stated that the purpose of the journey was to “reconnoiter the settlements which it is said the French nation has” (Thomas 1935:155), and repeated this understanding of his orders in his June 15 correspondence. The
composition of the Villasur Expedition would reflect these stated goals; while Valverde’s 1719 punitive expedition against the Utes and Comanches consisted of more than 600 soldiers (Kessell 2002), Villasur’s would be sized more manageably, as its purpose was to obtain information rather than project Spanish military power.

The 1720 force would be comprised of forty-two of the Spanish soldiers stationed in New Mexico, sixty Pueblo Native American allies, three civilian New Mexican settlers, and three ancillary personnel (Brandon 1990; Janin 2006; Kessell 2002; Phillips 2009; Thomas 1935). One of these latter was Jean L’Archeveque, a former French merchant who had had a role in the 1687 ambush and murder of René-Robert Cavelier, sieur de La Salle in Texas. L’Archeveque later accompanied Vargas north during the Spanish reoccupation following the Pueblo Revolt, and had been a resident of Santa Fe since 1694. Having accompanied both Ulibarri and Valverde on the expeditions of 1706 and 1719, he was well-acquainted with the region through which the force would initially travel, and being fluent in French was also serving as an interpreter (Brandon 1990; Thomas 1935). Another of these ancillary personnel was José Naranjo, a Native American originally from the Plains who had even more experience in the expedition’s target area than L’Archeveque; in addition to taking part in Ulibarri’s and Valverde’s journeys, Naranjo had made at least two other voyages past the northern borders of Spanish territory, including one that may have traveled along the Platte River at far as its confluence with the Loup River (Brandon 1990; Phillips 2009; Thomas 1935). Father Juan Mínguez, a priest of New Mexico, would provide spiritual support to the expedition (Thomas 1935).

The ratio of Spanish military personnel to Native American allies continued the pattern that has been established in Chapter 2. As outlined above, the complete
expedition roster of 108 individuals included sixty Pueblo allies, making up roughly 56 percent of the numerical strength of the party. Like Ulibarri’s and Valverde’s campaigns of preceding years, the majority of Villasur’s military command would actually be composed of Native American allies rather than professional Spanish soldiers. This system was an effective strategy to supplement the available colonial military forces in New Mexico, allowing the projection of force despite the relatively miniscule quantity of military resources allocated to the northern frontier of New Spain. In a letter dispatched to Mexico City in October of 1720 after the survivors of the expedition had reached Santa Fe, Valverde writes that there existed at that time a “quota of one hundred soldiers which his majesty…has assigned to this kingdom” (Thomas 1935:167). It would therefore have been impossible to mount an expedition of equal size utilizing only Spanish personnel without leaving New Mexico entirely undefended. As it was, the forty-two soldiers in Villasur’s force still comprised nearly half of New Mexico’s total professional military establishment.

The new expedition would be under the command of Don Pedro de Villasur, Valverde’s lieutenant-governor and political subordinate. No wagons were to be used; unlike Oñate’s journey of colonization in the late sixteenth century, Villasur’s reconnaissance expedition would travel exclusively by horse, with mules carrying the bulk of the force’s equipment and supplies. Aside from the provisions, ammunition, and equipment for the use of the men of the expedition, the mules carried goods to trade with Native American groups encountered on the journey. This cargo for trade included weapons such as knives and short swords, baize (coarse cloth), sombreros, and “half a muleload” of tobacco (Thomas 1935:37). If the French were indeed cultivating a
relationship with the Plains tribes through trade, then the Spanish were intending to make inroads of their own. No precious metals were taken for the purposes of trade, though apparently a number of silver cups and platters, a quantity of silver cutlery, and a silver candlestick, saltcellar and inkhorn were taken for the personal use of Villasur and his senior officers (Bandelier 1890:192; Thomas 1935:249).

The weapons carried by the members of the expedition can be expected to have been quite varied. Very little specific information on the firearms provided to the soldiers of the early eighteenth century New Mexican frontier is extant, but the vast majority would have been flintlock weapons by this time, with sparks to ignite the priming and main charges in sequence coming from a spring-driven gunflint striking a frizzen (Brinckerhoff and Chamberlain 1972; Curtis 1927; Peterson 1956). Spanish flintlock muskets were visually distinct from their European counterparts due to a number of unique stock designs (including the fluted Madrid and hooked Catalan designs), as well as their possessing pronounced ring-screws for adjusting the jaws holding the flint. In addition, the Miquelet lock in which horizontal sears release the hammer is distinctive to Spanish weapons in North America, and is easily recognizable due to its heavy construction and squat hammer (Figure 3-2) (Brinckerhoff and Chamberlain 1972; Faulk 1971; Peterson 1956). Though features such as the ring-screws would be readily identifiable in an archeological context, it must be emphasized that they may be entirely absent at a given Spanish site, as the soldiers of the northern frontier were supplied with whatever weapons were available, possibly even including English patterns (Curtis 1927).
Figure 3-2. Spanish flintlock musket stock and lock designs. The hooked end of the Catalan and fluted, flat Madrid designs were distinctive to Spanish muskets, as was the squat Miquelet lock, visible in the top example (Faulk 1971:56).

In very few areas are the consequences of New Mexico’s geographical position at the end of a long supply line as evident as in the range of firearms in use at the time. Muskets were supplied to New Mexico in a variety of calibers, and this inconsistency coupled with the shortage of firearms of any type would cause difficulties on both a local and regional scale. The governor of Parral, in his December 11, 1719 letter to viceroy Zúñiga y Guzmán requesting re-supply in the face of the French threat, confirmed that both his soldiers and colonists used weapons similar to the French and the English, but specifically requested that “[t]he firelocks of three-quarter [inch] caliber should be prohibited because they are of no use…being no better than the arrows of the Indians” (Thomas 1935:147). With the effort to keep their own military forces on the northern frontier supplied with equipment of adequate quality, and their fear of continued conflict with Native Americans after the events of the Pueblo Revolt, the Spanish remained reluctant to trade large quantities of firearms with Native Americans until they could
cement alliances with them (Schilz and Worcester 1987). The French, however, traded guns as a means of establishing better relations, a policy that resulted in the Pawnee and Comanche acquiring large numbers of firearms from the French and British by the mid-eighteenth century, while the Apache and the Pueblo continued to rely on the bow and arrows for offensive actions, except in instances where they were able to obtain muskets from other tribes with access to them (Schilz and Worcester 1987).

In the Villasur Expedition, then, firearms were concentrated in the hands of the Spanish soldiers, settlers, and ancillary personnel. Secondary weaponry among the Spanish soldiers included a variety of cup-hilted swords, with broadsword blades generally preferred among mounted soldiers and a thinner tapering rapier blade often wielded by foot troops. So-called wide swords, or espadas anchas, were a type of broadsword that had evolved out of a civilian hunting design. Lacking the cup hilt, these were used by mounted soldiers as a combination tool and combat weapon (Figure 3-3) (Brinckerhoff and Chamberlain 1972). A pike or lance with a long double-edged head and pointed tip may also have been carried, of a more lightly-built design than those of prior eras (Curtis 1927). The Pueblo Native Americans that accompanied the expedition out of Santa Fe, as well as the Apaches that joined the campaign in El Cuartelejo, would carry a bow and arrows as their primary offensive weapon (Secoy 1992).

The use of plate and mail armor had ceased by the eighteenth century, and both the Native Americans of the Southwest and professional Spanish soldiers relied on leather armor for protection in battle. The leather coat of the Spanish soldier, known as the cuera, was sewn from four to seven layers of cow or deer hide, extending down to mid-thigh when worn. A sleeveless garment, it was slipped on over an individual’s head and then
tied closed at the throat. The *cuera* was particularly effective against arrow fire; there exist a number of anecdotal accounts of individuals being struck with arrows and escaping completely unscathed due to the projectile’s being trapped in the multiple thicknesses of leather (Faulk 1971; Secoy 1992). The protection it provided against firearms was much diminished, however (Secoy 1992). The Apache and Pueblo, while also wearing leather armor, had an existing North American heritage of armor manufacturing to draw upon which was distinct from that imported by the Spanish, and the design of their equipment was correspondingly different. Multiple layers of leather were glued together, often with gravel or sand between the layers for added protection. The resulting garment was of one piece with a hole for the head and left arm, with the right side open but fastened closed. While the Apache consistently used this technique, some southerly Pueblo tribes may have also utilized the quilted cotton armor designs of Mesoamerica (Secoy 1992).

Figure 3-3. The top and middle views are of Spanish cup-hilted swords of the early eighteenth century, the upper being a broadsword weapon and the middle a rapier. The bottom view displays *espadas anchas*, or wide swords, a combination tool/combat weapon that had evolved out of a civilian design (Brinckerhoff and Chamberlain 1972:72-74).
The Spanish soldiers also carried shields made of several layers of bull hide, most commonly a dual-lobed, quasi heart-shaped design known as the *adarga*. This shield was roughly two feet square in size, and was a distinctly Spanish design, having been initially introduced into Spain by the Moors during the medieval stages of the *Reconquista* (Faulk 1971). The expeditionary force departing Santa Fe in mid-June of 1720 was thus generally uniform in dress, though distinctly heterogeneous in armament (Figure 3-4).

![Figure 3-4. Spanish colonial soldier wearing a cuera, holding an adarga in his left hand, and armed with a light lance, sword, and flintlock musket. The Spanish members of Villasur’s party would have left Santa Fe in a similar fashion (Faulk 1971:16).](image)

**The Journey North**

Despite being less familiar with firearms than the Spaniards, the Pueblos and the Apaches were accomplished horsemen, having traded the animals with (and raided them from) the Spanish for nearly a century (Haines 1938). Most members of the campaign were thus likely riding when the expedition departed Santa Fe on June 16, 1720, trailing a long line of mules laden with supplies. Their initial route followed that of Ulibarri and
Valverde quite closely, the force traveling northeast through Taos and La Jicarilla and then generally north along the eastern flank of the Sangre de Cristo Mountains (McKee 1974; Phillips 2009; Thomas 1924, 1935). Upon reaching the Arkansas River in present-day southeastern Colorado, the expedition utilized the trading goods they had carried with them for the first time, providing items to the Jicarilla Apache in exchange for guides through the region. The guides assisted Villasur’s force in crossing to the north bank of the Arkansas River on rafts, after which the march to the north resumed (Thomas 1935).

There are two main points during the campaign where Villasur’s precise location has been questioned. These will be explored in more detail in Chapter 4, but they are also briefly summarized here for introduction and clarity. The first contentious point is the location of El Cuartelejo. Thomas (1924, 1935), through an examination of marching distances given in the expedition diaries of Ulibarri and Valverde, maintains that El Cuartelejo was located in eastern Colorado. Later authors (as well as Bolton and Marshall (1920), writing earlier than Thomas) almost always place El Cuartelejo in Scott County in western Kansas, where the ruins of a pueblo are located. The second point that has been questioned is the location of Villasur’s final campsite and the battle itself, and is related to the assumed position of El Cuartelejo. Utilizing marching distances from a surviving portion of a diary from the Villasur Expedition that was discovered in 1921, and depending upon whether El Cuartelejo is assumed to be in Colorado or Kansas, one may arrive at a final location for the battle of either the forks of the Platte River near present-day North Platte, Nebraska, or at the confluence of the Loup and Platte Rivers near Columbus, Nebraska. While the intricacies of the problem are not explored until the
next chapter, the reader should be aware that from the crossing of the Arkansas River onward, any precise route for the Villasur Expedition is not universally accepted (Figure 3-5).

![Figure 3-5. One potential route for the Villasur Expedition. In this version, Thomas places El Cuartelejo in eastern Colorado, and then deduces a final battle location at the forks of the Platte near North Platte, Nebraska. Note that Villasur follows Ulibarri’s and Valverde’s route until the crossing of the Arkansas River (Thomas 1924:66).](image)

After marching north or east after the crossing of the Arkansas River, the expedition reached El Cuartelejo, most likely in mid-July, at which point they briefly rested (possibly for three days) (Witty 1983). It was at El Cuartelejo that a number of Apaches joined the campaign, to serve as guides for the remainder of the journey (Bandelier 1890; Thomas 1935). After resuming the march north, Villasur reached the south bank of the Río Jesús María (the Platte River, possibly the South Platte if the crossing point was far enough west) on August 6, 1720, after traveling a distance of about three hundred leagues (1,260 kilometers) from Santa Fe. At this point, Villasur called a council of war to decide whether to wait for further orders from Viceroy Zúñiga y Guzmán, or to continue to
search for groups of Pawnee to ascertain the extent of French activities in the region. A unanimous decision was made to proceed to the north bank of the river (Phillips 2009; Thomas 1924, 1935).

The trip to the north bank could not be completed in one night. After a crossing with small boats (pirogues) was deemed inadvisable due to the large number of islands in the area, the Apaches located a ford across the river and a portion of the force crossed before nightfall. The rest of the men and supplies were across by noon on August 7, and the following day the expedition “left the river”, apparently marching north once more (Thomas 1935:134). One Captain Serne of the expedition had a Pawnee servant with him, who had been taken from his village when very young. This servant believed he could follow tracks visible on the ground near the river to a Pawnee village, and was sent with José Naranjo and six soldiers ahead of the main force to reconnoiter the area beyond the river. The main expedition followed the tracks after the smaller group, crossing a creek and then reaching a larger stream flowing generally west to east three leagues (12.6 kilometers) north of the Platte. Meeting one of Naranjo’s scouts who informed them to follow this second stream east, the command marched a further three leagues (12.6 kilometers) and then halted for the evening (Phillips 2009; Thomas 1924, 1935). This second stream, which was considered too difficult to cross at the location where the expedition first came upon it, was likely either the North Platte or the Loup River, depending again on which route the expedition followed.

On the morning of August 9, one of Naranjo’s scouts arrived, informing Villasur that a group of Pawnees had been located eight leagues (33.6 kilometers) further east on the north bank of the river they were following. The command immediately crossed to the
north bank and marched east for three leagues (12.6 kilometers), halting at the point
where the stream they were following met the Río Jesús María. The expedition was now
at either the forks of the Platte or the confluence of the Loup and Platte Rivers. The
Pawnee servant of Captain Serne was dispatched to the Pawnees alone, to inform the
Pawnees of the presence of the expedition and apprise them of the Spaniards’ non-hostile
intentions. Not finding the initial group, the servant continued east a total of eight leagues
(33.6 kilometers) from the location of the expedition, finding a village on the south bank
of the river. The servant made gestures of friendship, but a number of Pawnees from the
village began crossing the river in an aggressive manner, and the servant fled back to the
expedition’s camp (Phillips 2009; Thomas 1924, 1935).

The following day (August 10), Villasur marched his command downriver to a point
directly opposite the Pawnee village on the south bank. Twenty-five to thirty Pawnees
approached the bank of the river and conversed with the Spanish on the opposite bank,
Captain Serne’s servant informing Villasur that the Pawnees were making peaceful
gestures and that they wanted the servant to come into the village. Villasur instructed the
servant to inform the inhabitants of the village of the expedition’s peaceful mission and
gave him a quantity of tobacco (and perhaps a few knives) as a gift for the Pawnees,
following which the servant swam across the river (Phillips 2009; Thomas 1924, 1935).
At this point, the surviving diary fragment that was written by a member of the
expedition ends, and all accounts of events following this point are compiled from the
testimony of survivors, given later in Santa Fe. The servant apparently returned to the
south bank of the river later in the day, shouting across to Villasur that while the Pawnees
were friendly, they would not allow him to leave and the servant knew nothing about
French interactions with the inhabitants of the region (Dunn 1915; Phillips 2009; Thomas 1924, 1935).

On the eleventh of August, a number of Pawnees visited the Spanish camp and mentioned the possible presence of a white man in the village. In reply, Villasur ordered L’Archeveque to write a letter in French and sent it back to the village with the Pawnees. The following day (August 12), a reply was received in the form of a piece of paper covered with unintelligible writing and an old linen (possibly a French Breton) flag. Villasur, surmising that any Frenchman present may have been without adequate writing materials, sent the Pawnee messenger back with ink, a quill, and paper, along with a second letter of introduction written in Spanish (Phillips 2009; Thomas 1924, 1935).

At some point during these two days of interaction, Villasur held another council of war, in which he apparently advocated crossing the river en masse and engaging in face-to-face discussions with the Pawnees. The majority of the council, however, rejected this plan, arguing that the behavior of the Pawnees thus far did not warrant their full trust. The holding of Captain Serne’s servant and the unclear information obtained about the Pawnees’ relationship with the French both warranted caution. As a result, without having received a reply to their final exchange, the expedition broke camp and retreated to the west on August 13, crossing to the south bank after passing the point of confluence with the Río Jesús María and making camp on the point of land between the rivers at about four o’clock in the afternoon (Phillips 2009; Thomas 1924, 1935).

Villasur did post sentries around the camp for security that evening, though after having retreated the full eight leagues (33.6 kilometers) back to the confluence of the rivers, he did not expect any major disturbances. After nightfall, the loud barking of a dog
was heard, along with sounds of what may have been people crossing one or both of the two rivers. Other than telling the sentries to keep a sharp watch, Villasur appears to have performed no other actions (Bandelier 1890; Hadley et al. 1997; Phillips 2009; Thomas 1924, 1935).

**Destruction and Aftermath**

The morning of August 14, 1720, began with activities that must have been very familiar to soldiers who had been on the march for nearly two months. The entire area was covered in high grass, and the Spanish and Native Americans were encamped separately, the horses and mules being grouped nearby. The expedition was in the midst of breaking camp, packing, saddling the horses and roping the mules when they were suddenly attacked by a large group of assailants (survivors’ accounts estimate several hundred). Valverde’s explanatory letter to the viceroy in October would suggest that the attackers were familiar with the camp routine. Several horses were left saddled during the night for use when required, but the surprise attack evidently came at the point when the entire camp had awakened and was busy transitioning from a stationary to a mobile state. Surprise was total, and the horse herd stampeded soon after the attack began, being pursued by a number of expedition members (Hadley et al. 1997; Phillips 2009; Thomas 1924, 1935).

L’Archeveque was killed almost immediately, and both Villasur and his servant apparently died near the lieutenant-governor’s tent, not having time to take effective command. Though some accounts mention that enough damage was inflicted by the defenders on the Pawnee attackers that the survivors were able to escape without pursuit,
the battle was nothing like an equal contest. The majority of the camp was eventually surrounded and fired upon from all sides. After a number of horses were recovered, a group of Spaniards and Native Americans attempted to present an effective resistance, but were finally forced to flee after charging the attackers on multiple occasions (and possibly rescuing a few wounded soldiers). In addition to the aforementioned individuals, Captain Serne, Father Mínguez, and Naranjo were all killed in the attack, along with dozens of other soldiers and Native American allies, for a total loss of between thirty-three and thirty-five Spanish and eleven allies (Dunn 1915; Hadley et al. 1997; Phillips 2009; Thomas 1924, 1935).

The survivors included twelve or thirteen Spanish soldiers and more than fifty Pueblo and Apache allies. Though the expedition as a whole suffered 40-50 percent losses, a full 70-75 percent of the Spanish soldiers present were killed, indicating that the attack may have been concentrated at the Spanish section of the camp. Returning by way of El Cuartelejo, the remnants of the expedition arrived back at Santa Fe on September 6, 1720. The surviving horses, which Bandelier states may have been left at Taos, apparently arrived at Santa Fe nine days later (Bandelier 1890). The immediate response was dramatically increased alarm in the province of New Mexico, not least because fully one third of the entire professional military force available for defense had been eliminated. The fear of an imminent French invasion was mediated somewhat by news of the end of the War of the Quadruple Alliance, the fighting of which had actually ceased in Europe some months earlier. Yet Valverde was severely criticized, chiefly because he had chosen Villasur to lead the expedition instead of taking command himself. Villasur’s inexperience with military matters and his perceived poor placement of the final camp in
an exposed location were both subjects touched on during Valverde’s questioning. When
the inquiries were completed, Valverde paid a number of fines to support charity masses
for the souls of the battle’s casualties. The events of 1720 helped to renew discussions
about establishing a presidio at La Jicarilla, as its defensive value would be even more
important with the reduced military forces now available to the province. Despite this
dialogue, however, the presidio would never be established. In the end, Villasur’s
expedition into Nebraska would mark the final major attempt to assert Spanish control
over the Great Plains (Dunn 1915; Hadley et al. 1997; McKee 1974; Phillips 2009;
Thomas 1924, 1935).

The historic importance of the Villasur Expedition was unquestionable. The defeat of
the campaign allowed France free reign in conducting trade with the Native Americans in
the region. Internationally-recognized ownership of the Louisiana territory would pass to
Spain in the closing days of the French and Indian War in 1762, before finally reverting
back to France and being sold to the United States in the Louisiana Purchase of 1803
(McKee 1974). Given this heritage, the influence of the expedition in the territorial and
economic evolution of the United States is obvious. Yet a renewed examination of the
engagement would also provide important insights for the relatively new subdiscipline of
battlefield archeology. An analysis of the campaign from this perspective had not yet
been conducted, and the archeological remains of the expedition are a potentially rich
reservoir for both testing existing models and adding to what is known about the
archeology of the catastrophic military defeat. A detailed accounting of the historical
background of the battle was but the first step; the next was an attempt to reduce the
ambiguities about the conflict’s location.
Chapter 4
An Analysis of the Villasur Route

A necessary prelude to formulating an archeological survey strategy to search for the remains of the Villasur Expedition is to eliminate the ambiguities about the battle’s location. This chapter presents the results of a geospatial analysis intended to achieve this clarification, and is organized around a computerized reconstruction of the three primary variations on Villasur’s route, proposed by Thomas (1924), Shine (1924), and Phillips (2009). These and other minor variations are compared with the relevant historical documentation, allowing a definitive conclusion that a Villasur battlefield site in eastern Nebraska best fits the available information. The survey area examined in Chapter 6 is partially based upon these conclusions.

While the broad historical narrative of the Villasur Expedition is fairly well-known, due in no small measure to Alfred Barnaby Thomas’ translation of many original Spanish colonial source materials, the particulars of the expedition’s route from New Mexico to Nebraska have proven more contentious. The majority of authors writing on the campaign have placed El Cuartelejo in Scott County, Kansas, but Thomas himself has contended that Villasur’s primary mid-journey stopping point was located in eastern Colorado, an interpretation that holds significant consequences for the eventual location of the final battle. These inconsistencies must be resolved and a final determination of the area in which the battle took place must be achieved with a high degree of confidence before an archeological interpretation of the expedition’s material remains can be attempted.
The only means through which the route of Villasur’s force may be determined is by the progressive aggregation of marching distances, as no precise locations of events are known other than the Santa Fe departure point. These marching distances are provided by a surviving fragment of a diary kept by an unknown member of the expedition. The diary fragment was delivered to Pierre Dugué de Boisbriand, the commander of French forces in the province of Illinois, by Native Americans at some point following the battle (de Villiers 1923). Eventually finding its way to France, the document (or possibly a French translation) was rediscovered by Baron Marc de Villiers in the Paris archives of the Minister of War and the Hydrographic Service of the Navy in 1921, and later published by him in that year in an edition of the *Journal de la Société des Américanistes des Paris* (de Villiers 1921). How complete the document was at the time it passed into the hands of the French is unknown, but when de Villiers recovered it the diary began with the expedition at the Río Jesús María (Platte River) on August 6, 1720 and ended with the force across the river from the Native American village on August 10 (de Villiers 1923). The diary fragment was first translated from de Villiers’ 1921 French article by Addison E. Sheldon and published in English in 1923 in *Nebraska History and Record of Pioneer Days* magazine (Sheldon 1923), and was later translated once more from the French by Thomas (1935). Both English versions vary slightly in syntax, but not in substantive content, and the more recent translation has been consulted during the following analysis. The information provided by this document, when combined with distances from Santa Fe to El Cuartelejo obtained from the diary of Ulibarri’s 1706 expedition and the depositions of Villasur survivors taken after their retreat to Santa Fe, allows a rough reconstruction of the movements of the Villasur Expedition throughout the campaign.
The analysis in this chapter builds upon those undertaken by Thomas, de Villiers and M. A. Shine in the 1920s. While Thomas’ 1924 writings appear to be the origin of a specific Colorado hypothesis for El Cuartelejo’s location, the assumption of a Kansas route predates the discovery of the Villasur diary in the Paris archives, and was bolstered by the known existence of contemporaneous pueblo ruins in Scott County. Shine does appear, however, to have been the first author to propose a specific route for the expedition involving the Kansas El Cuartelejo location (Bandelier 1890; Bolton and Marshall 1920; Dunbar 1909; Shine 1924; Thomas 1924).

While the number of available primary sources has remained largely unchanged since the 1930s, the likely route of the Villasur Expedition is due for a reexamination utilizing contemporary geospatial technologies. The use of software programs allows a degree of precision in measurement and precise visualization that was not possible before the advent of computer analysis, and makes possible the rapid comparison of a number of different possible routes. Two different analytical approaches were considered for this study, with the final decision of methodology dependent upon a consideration of likely sources of error and the anticipated precision of the results.

**An Overview of the Different El Cuartelejo and Battle Locations**

As briefly introduced in Chapter 3, the precise locations of two points on the Villasur route have proven to be the source of most disagreements about the course taken by the expedition to Nebraska. The first is that of El Cuartelejo, where Ulibarri had visited the Cuartelejo Apache in 1706 and where Villasur’s command paused midway through the journey north to rest and obtain the assistance of Apache guides for the rest of the
campaign. The second location is that of the final battle itself. As reconstructing Villasur’s route depends upon the aggregation of marching distances from one point to the next, the location of the expedition’s destruction at the hands of the Pawnee is to a large extent dependent upon the El Cuartelejo location from which the researcher chooses to extrapolate.

Thomas places El Cuartelejo in eastern Colorado, in either southern Lincoln or western Kiowa counties. His interpretation is based upon the daily marching distances from Santa Fe to El Cuartelejo given in Ulibarri’s 1706 expedition diary, as well as a statement in the Villasur diary fragment that the command had traveled three hundred leagues from Santa Fe to the Río Jesús María (Platte/South Platte River) (Thomas 1924, 1935). The precise date of conception of Thomas’ Colorado hypothesis is unclear, though it seems to have originated in discussions between Thomas and Dr. Herbert Eugene Bolton of the University of California. Thomas notes that his “attention was first directed by Professor Bolton to the fact that the Kansas location was too far east and that [El Cuartelejo] was well within the present bounds of Colorado” (Thomas 1924:74). Indeed, Bolton noted in his 1920 work with Thomas Maitland Marshall The Colonization of North America 1492-1783 that El Cuartelejo was located “in eastern Colorado” (Bolton and Marshall 1920:296) and “near the Colorado-Kansas border” (Bolton and Marshall 1920:291). Unfortunately, Bolton’s 1920 book does not contain detailed references, so the further heritage of this theory cannot be explored. Thomas’ version of the Colorado hypothesis has been somewhat modified from Bolton’s, as the latter believed that the final battle had taken place on the South Platte within the borders of Colorado (Bolton
and Marshall 1920), highly inconsistent with the available marching distances, as will be seen.

Virtually all other authors that mention the location of El Cuartelejo place it in western Kansas (Bandelier 1890; Champe 1949; Dunbar 1909; Gunnerson 1984; Lange 1957; McDonald 1982; Phillips 2009; Sheldon 1924a; Shine 1924; de Villiers 1923; Witty 1983). The Kansas hypothesis has its origin in the expedition account of Bandelier (1890), who (writing before the discovery of pueblo ruins in Scott County) placed El Cuartelejo in northwestern Kansas (Bandelier 1890:183). The discovery of the Scott County ruins in 1897 (which remains the northernmost known pueblo in the United States) inspired correlations with the El Cuartelejo known from historical records (National Park Service 2008; Scott County Historical Society 2011; Witty 1983). The pueblo, with a state trinomial designation of 14SC1, was initially excavated by S.W. Williston and H.T. Martin of the University of Kansas in 1897-1898, revealing a seven-room stone and adobe structure and the associated remains of three irrigation ditches (Witty 1983).

The Kansas site possesses a number of strengths as an El Cuartelejo location, even before a reconstruction of Villasur’s route is attempted. First, although formal excavations and extensive looting activities during the twentieth century had resulted in the disruption of the majority of the pueblo structure, excavations in 1970 preceding reconstruction efforts retrieved fifteen sherds of Tewa polychrome pottery. These sherds dated to around AD 1700-1725, bracketing the period of Ulibarri’s and Villasur’s expeditions (Witty 1983). The dating of sherds recovered during earlier excavations extended the early date for the pueblo’s occupation to the late seventeenth century (Gunnerson 1960). Additionally, Spanish artifacts dating from roughly the same mid-
seventeenth to mid-eighteenth century period were recovered from the site, demonstrating that colonial Spanish interaction with the resident Picuris Pueblo Native Americans did take place during the pueblo’s occupation (National Park Service 2008).

Interestingly, two eighteenth century maps also favor the correlation of the Kansas location with the Native Americans known to the Spanish colonists of New Mexico as the Cuartelejo Apaches. One map, drawn by Don Luis de Surville in 1770, is a copy of an earlier map drawn in 1727 on the order of the viceroy of New Spain, and is a depiction of the region north of New Mexico inscribed with the known location of Native American tribes. On the Surville map, the “apaches de quartelejos” are placed seventy leagues further to the east than the last tribes depicted in Colorado, within the boundaries of present-day western Kansas (Champe 1949:290). Although a copy of the Surville map could not be located for a direct confirmation of Champe’s observation, a map drawn two years earlier by José Antonio de Alzate y Ramirez also suggested a Kansas location. This 1768 depiction of the entirety of the viceroyalty of Mexico has a settlement labeled “Apaches Quartelejos” situated approximately 110 leagues (462 kilometers) east northeast of Santa Fe (Figure 4-1) (Wheat 1957:86-87). This location is just over the state line into Kansas, but is still approximately 105 kilometers from the Scott County pueblo. It is also, however, nearly 170 kilometers from Thomas’ Colorado position, and thus still tends to favor a Kansas El Cuartelejo location.

In contrast, the Colorado position is far less favorable. Aside from the obvious fact that Thomas’ location has no recorded archeological site associated with it, there are very few archeological sites in eastern Colorado as a whole that could even be considered as a candidate. The Apishipa phase sites in southeastern Colorado sometimes displayed
Puebloan architectural influence in the form of single or aggregated multi-room structures, constructed of rock or brush walls, or a hybrid of a rock base with a brush superstructure (Zier and Kalasz 1999). However, though occupied from the late tenth century AD, the Apishipa sites underwent a process of abandonment beginning in early fourteenth century and ending in the early fifteenth, possibly due in part to the major droughts that were also affecting settlement patterns in the contemporary Southwest (Zier and Kalasz 1999:201-202). Aside from dating too early to be associated with the Ulibarri or Villasur expeditions, the Apishipa sites are also located to the south of Thomas’ proposed El Cuartelejo location. There are some Dismal River Aspect (protohistoric Apache) sites in eastern Colorado dating to the appropriate sixteenth-eighteenth century AD time frame, but these are also unsuitable for an El Cuartelejo association. Unlike the Puebloan architectural characteristics exhibited by some Apishipa sites, the Dismal River Aspect sites in Colorado were primarily small horticultural settlements archeologically indicated by pithouses or stone tepee circles several meters in diameter (Eighmy 1984).

Figure 4-1. A portion of the 1768 Alzate map of the viceroyalty of New Spain. Santa Fe is at the extreme lower left, while the last settlement visible in the upper right is labeled “Apaches Quartelejos”. At roughly 110 leagues from Santa Fe, the location does not correlate exactly with the Kansas pueblo ruins, but still more strongly favors this site as an El Cuartelejo location than eastern Colorado (Wheat 1957:86-87).
Finally, evidence of Spanish or French activities in eastern Colorado is itself extremely rare (Carter and Mehls 1984; Mehls 1984). This is perhaps unsurprising given the short-term nature of most European occupations, but once again does not compare well with the Spanish artifacts recovered at 14SC1 to support Thomas’ contention.

It is apparent, then, that the Scott County pueblo ruins are a very promising location for Ulibarri’s farthest point north and Villasur’s mid-journey stopping point. Yet the question is more than academic, for one’s choice of an El Cuartelejo site represents a point from which a march can be measured to the Río Jesús María, the point at which Villasur’s daily march distances begin in the diary fragment. Put simply, the problem is thus: the Villasur diary states that the expedition marched three hundred leagues from Santa Fe to the Río Jesús María, while Ulibarri’s diary is clear that the 1706 campaign marched roughly one hundred fifty leagues from Santa Fe to El Cuartelejo (Thomas 1935; de Villiers 1923). The marching distance from El Cuartelejo to the point where Villasur reached the Platte, then, must also be roughly one hundred fifty leagues (300 - 150), requiring an El Cuartelejo site approximately this distance from the Platte River. Thomas states a precise total of 142 leagues for Ulibarri’s march (Thomas 1935:271), but Ulibarri’s diary itself necessitates an ambiguous calculation, as on a number of occasions he states that a march took place without specifying a distance (“We set out…and, at a short distance, arrived”, etc.) (Thomas 1935:68).

The unit of linear measurement in use in New Spain in the early eighteenth century was the *legua legal*, or statute league. The statute league was about 4.2 kilometers in length, though its precise measurement varied very slightly over time. Until the early seventeenth century, the statute league was in joint use with the *legua común*, or common
league, with the former being used for official documents and delineating land grants and the latter defining distances. The common league had long fallen out of use by the time of Ulibarri’s and Villasur’s expeditions, however, with the statute league of 4.2 kilometers defining the daily march distances provided in the diaries of both campaigns (Chardon 1980a, 1980b).

A determination of the final location of the destruction of the Villasur Expedition is achieved by following the daily march distances in the Villasur diary fragment from the point where the command left the Platte River on August 8, 1720. Understandably, the starting point for these measurements depends entirely upon the defined location for El Cuartelejo, from which the march of one hundred fifty leagues to the river originated. Thomas arrives at a battle location at the forks of the Platte River near North Platte, Nebraska by calculating distance from the Colorado El Cuartelejo site, while de Villiers, Shine and others have determined the engagement likely took place near Columbus, Nebraska at the confluence of the Loup and Platte Rivers by beginning from the Kansas site (Phillips 2009; Sheldon 1924a; Shine 1924; Thomas 1924, 1935; de Villiers 1923).

An attempt to objectively determine the more promising of the two locations was a necessary precursor to any archeological investigation of the battlefield site. If the time and effort of survey participants was to be utilized in an attempt to locate the archeological remains of the expedition, the selection of the highest-probability survey area was of paramount importance. The existing archeological evidence is highly persuasive that the Scott County pueblo was the most likely El Cuartelejo location, but a geospatial comparison of the routes, aside from never having been attempted, provided important supporting evidence.
Choosing a Testing Methodology

In an attempt to reconstruct the route of the Villasur Expedition, the author considered two approaches to a geospatial analysis. Both utilized the marching distances from the 1720 Villasur diary fragment and the 1706 Ulibarri diary, which comprise the only extant precise information bearing on the movements of the command. The decision of a final methodology was informed by the desire to both minimize potential sources of error and adhere as closely as possible to the small quantity of data available.

Initially, the analysis utilized version 10.0 of Esri’s ArcGIS software to reconstruct a topographic model of the terrain over which the expedition traveled. The United States Geological Survey’s online Seamless Data Warehouse allows the selection and download of a wide variety of geographical information from an electronic map of the United States. These include Digital Elevation Models (DEMs) at several different resolutions, containing topographic and elevation information of a selected area that can be imported into a Geographic Information Systems (GIS) program like ArcGIS for analysis. The Seamless Data Warehouse allows the delineation of a download area via a user-defined template, and the dataset for the Villasur investigation was generated by selecting individual counties in the states of New Mexico, Colorado, Kansas, and Nebraska through which the expedition may have traveled. The dataset utilized DEMs with a resolution of one arc-second (30 meters), and the size of the entire dataset was slightly over 1.8 gigabytes in size.

The methodology for the ArcGIS analysis was to instruct the program to find a point-to-point route of three hundred leagues (1,260 kilometers) originating in Santa Fe, passing through one of the two El Cuartelejo locations, and ending at the Platte River
near one of the two prospective battle sites. It was hoped that by defining an arbitrary
degree of slope (50%) that a military force traveling overland on horseback would be
likely to avoid rather than attempt to traverse, the program would generate a route of an
appropriate length excluding such slopes that would approximate a possible route of the
Villasur expedition. The comparison of routes for both locations would then indicate
which El Cuartelejo site and battlefield location was more in accordance with the
marching distances provided by the diaries.

The program encountered one major issue in this initial attempt that precluded an
accurate route analysis. While the logical basis is believed to be sound, the arbitrary
definition of a point at which to discard a slope from a prospective route (as necessitated
by an ArcGIS Boolean query) introduced a degree of homogeneity in decision-making
that would have been unlikely to occur in a dynamic real-world environment. For
example, if a single cell in the raster dataset had a slope of 55% (as might be encountered
on a stream bank or similar topographical feature), ArcGIS would have discarded it as a
prospective route and continued along the hypothetical stream until a cell of appropriate
slope was found. Such a decision may have resulted in the computerized expedition
taking a twenty-kilometer detour until a crossing could be made, while in reality Villasur
may have considered such a delay unacceptable and crossed the stream over a slope he
otherwise may not have traversed.

Unpredictable factors such as weather and fatigue may have further complicated
matters. A tired column may have unconsciously favored shallower slopes in the evening,
and even a well-rested horseman may have been wary of guiding his animal down a
grassy slope slick with dew or rain. Given such a wide range of potential variability,
which can be expected in any human decision-making process, the author decided that any route of an appropriate length found using the aforementioned ArcGIS methodology would in all probability not correspond to the actual route taken by the Villasur expedition. One could not reasonably expect that the Spanish/Native American force avoided all steep slopes during their march in favor of searching for a better route.

To eliminate this potentially very large source of error, and in order to exploit to the fullest the primary sources of information of the expedition’s route that were available, a geospatial analysis relying solely on Ulibarri’s and Villasur’s marching distances was then devised. As detailed topographical information was much less important in a study solely involving linear distances, the author discarded the DEMs of one arc-second resolution in favor of a simpler approach utilizing the Google Earth information program (version 6.0.3.2197). While Google Earth is a useful and well-known visualization tool, its additional utility for two-dimensional analyses like that undertaken here is illustrated by a 2008 study indicating that Google Earth imagery has a horizontal positional accuracy comparable to (and in some cases better than) Landsat GeoCover orthorectified satellite imagery (Potere 2008).

The new analysis strategy predicted that aggregating the daily marching distances and rough cardinal directions from the two eighteenth-century diaries would allow a clear determination of the El Cuartelejo and battle locations more likely to have been visited by Villasur. While the elimination of the consideration of topography would undoubtedly introduce an element of error into the routes, the distances given in the diaries are approximate in either event. Furthermore, the benefits of determining the more promising
area for an archeological investigation were considered to far outweigh any minor inconsistencies with the actual historical route followed by the Villasur Expedition.

**An Analysis of Potential Expedition Routes**

A methodology having been established, the analysis began by plotting four markers on the Google Earth view of the Great Plains, one for each possible El Cuartelejo and battle location. As Thomas defined his Colorado location for El Cuartelejo as being in “either southern Lincoln or western Kiowa County” (Thomas 1935:271), the marker in Colorado was placed at the midpoint of the mutual border of Lincoln and Kiowa counties.

Three primary routes for the Villasur Expedition have been hypothesized by past authors: one each by Thomas and Shine in 1924, and a final route by Thomas D. Phillips in 2009. Minor variations on these routes do exist. James Gunnerson, for example, has plotted very detailed routes to El Cuartelejo followed by the 1706 and 1719 Ulibarri and Valverde expeditions by comparing daily marching distances from the expeditions’ diaries and intensive examination of the local terrain along the route (Gunnerson 1984). His proposed march for Ulibarri (which was presumably also followed quite closely during the first half of the 1720 expedition) is broadly similar to Shine’s proposal for Villasur. Gunnerson’s route is not reconstructed here because the detailed daily marches he obtained that are specific to the Ulibarri diary would not correspond precisely to Villasur’s travels in 1720; however, the general accuracy of Gunnerson’s conclusions is supported by Shine’s route being deemed the most suitable in the geospatial analysis below.
Bandelier (1890), disagreeing with the conclusions of John Gilmary Shea that the Villasur force had been destroyed on the Missouri River, appears to have been the first to contend that the battle took place at the forks of the Platte River near what is today North Platte, Nebraska. As mentioned above, he also placed El Cuartelejo in northwestern Kansas (though without associating it with an archeological site). Unfortunately, Bandelier’s total marching distances using these waypoints total only 869 kilometers (206.9 leagues), considerably short of the three hundred leagues stated in the Villasur diary (Bandelier 1890:197). As Bandelier was writing a full thirty-one years before the Villasur diary fragment came to light, his mistake is understandable, but due to the major discrepancy his route is also not reconstructed below.

Before the consideration of any entirely new Villasur routes, the prior work of Thomas, Shine, and Phillips was plotted within the Google Earth environment to determine its concurrence with the available marching distances. As discussed above, Thomas places El Cuartelejo in eastern Colorado and the battle at the forks of the Platte in western Nebraska. These locations are based on his interpretation of the direction of Ulibarri’s daily marching distances for the two weeks following the expedition’s departure from Taos. After deciding upon the Colorado location, Thomas subtracts Ulibarri’s total march distance to this point from Villasur’s stated total distance of three hundred leagues upon reaching the Platte to arrive at a distance from El Cuartelejo to the river. From this juncture distances in the Villasur diary fragment may be followed (Figure 4-2) (Thomas 1924, 1935).

The route hypothesized by Shine is particularly interesting. Not only does his analysis favor the Kansas El Cuartelejo location, but Shine depicts Villasur as following the
Smoky Hill River eastward from El Cuartelejo, then following northward an established Native American trail that ran from the Great Bend of the Arkansas River to Pawnee settlements in central Nebraska (Figure 4-3) (Shine 1924). This route is promising for two reasons. First, in addition to historical evidence for a Native American trail in this location, archeological investigations in the 1980s uncovered evidence of the existence of the trail, running from the Arkansas River northward through Wilson Lake, Kansas and into Nebraska. The trail followed the ridge tops dividing local stream basins, a near-necessity for efficient travel in the dissected plains of northern Kansas and southern Nebraska (Blakeslee and Blasing 1988). In addition, by this point in the expedition Villasur’s primary guides were Apaches from El Cuartelejo, who would have been well aware of the most suitable transportation routes in the area.

Figure 4-2. Thomas’ 1924 interpretation of Villasur’s route. Note the Colorado location of El Cuartelejo and the battle location at the forks of the Platte in western Nebraska (Thomas 1924:66).

Finally, Phillips’ 2009 depiction of Villasur’s march offers an alternative scenario utilizing the Kansas El Cuartelejo location and the Loup/Platte battle site. In this case, the expedition would have maintained a fairly constant course to the northeast from El
Cuartelejo until arriving at the south bank of the Platte River near the present-day location of Columbus, Nebraska. This route omits the Kansas-Nebraska Native American trail and provides a more direct route (Figure 4-4) (Phillips 2009).

Figure 4-3. Shine’s 1924 interpretation of Villasur’s route. Note the Kansas El Cuartelejo location, the Native American trail connecting Nebraska and Kansas, and the battle location at the confluence of the Loup and Platte Rivers in eastern Nebraska (Shine 1924:82).

Figure 4-4. Phillips’ 2009 depiction of Villasur’s route, beginning at Santa Fe, pausing at El Cuartelejo in Kansas, and ending at the Loup/Platte battlefield site in Nebraska. This route meanders more gently than Shine’s, avoiding the Kansas-Nebraska Native American trail (Phillips 2009:2).
Upon plotting Thomas’ route within the Google Earth environment, the program’s Ruler tool may be used in Path mode to aggregate the distance traveled on each leg of the march. When Thomas’ hypothetical path is compared with the stated marching distances from 1706, a number of discrepancies become apparent (Figure 4-5). Ulibarri writes that after leaving Taos (located fifteen leagues or 63 kilometers marching distance from Santa Fe) on July 20, 1706, his command marched east for eighteen leagues over two days (18 x 4.2 = 75.6 kilometers), before traveling north eighty leagues (336 kilometers) over the course of eight days to reach the Arkansas River on July 29 (Thomas 1935:62-65). From the Arkansas River, Ulibarri specifically records that his command marched roughly east twenty-two leagues (92.4 kilometers) over six days to reach El Cuartelejo (Thomas 1935:66-68). During parts of three of these days, however (July 31, August 1-2), the party was lost and marched some undetermined distance to the east, so the actual length of this leg of the journey can be assumed to have been longer. Having arrived, the total recorded distance traveled from Santa Fe by Ulibarri is 135 leagues. A moderate rounding to 150 leagues to compensate for the distance traveled while lost gives a rough distance marched for the 1706 expedition of 630 kilometers.

This total would indeed place El Cuartelejo roughly halfway along Villasur’s march of three hundred leagues from Santa Fe to the point where the diary fragment begins, just as Thomas observes. Yet the route proposed for the 1706 campaign by Thomas presents significant problems when correlation with the distances provided by Ulibarri is attempted. As can be seen in Figure 4-5, Thomas faithfully includes Ulibarri’s initial eastward march from Taos and jog northward, bringing the expedition to the river near the present-day location of Pueblo, Colorado. Yet this hypothesized route from Santa Fe
to El Cuartelejo totals only roughly 500 kilometers, a full 130 kilometers or 31 leagues shorter than that likely to have been traveled by Ulibarri.

**Figure 4-5. Google Earth hybrid reconstruction of Thomas’ proposed paths for Ulibarri and Villasur.** In this view, the route to El Cuartelejo from the south is that proposed for Ulibarri’s 1706 expedition, while the route from El Cuartelejo to the forks of the Platte is that proposed for Villasur in 1720.

Furthermore, in order to arrive at a battle site at the forks of the Platte, Thomas proposes that the expedition marched due north from El Cuartelejo for roughly 47.6 leagues (200 kilometers), then followed the Platte River eastward for a distance of 64.3 leagues (270 kilometers). The end of Thomas’ route presents two major problems: First, the final total marching distance from Santa Fe to the forks of the Platte along this path totals 970 kilometers, or only 231 leagues, fully 23% shorter than the stated distance traveled at the beginning of the Villasur diary. Second, it relies on an assumption that the 1720 expedition paralleled the Platte River for 270 kilometers before crossing to the
north bank. While it is true that the diary fragment makes no mention that the command had just arrived on the river, it does state that after the August 6 council of war Villasur ordered some of the Native American guides to “look for the ford across the river” to enable the expedition to cross (Thomas 1935:134). If the force had been following the Platte River for hundreds of kilometers by August 6, it would seem reasonable to expect Villasur to have noted the location of a suitable ford by this point, and would have no need for a group of Native American guides to locate one. Though entirely circumstantial, this event combines with the discrepancy in marching distances to cast doubt on the accuracy of the route anchored on El Cuartelejo being located in Colorado.

Finally, there is no reason to assume that Villasur followed Ulibarri’s initial jog of eighteen leagues east from Taos before turning north. The 1720 expedition may well have skirted the eastern edge of the Sangre de Cristo Mountains and began marching north as soon as practicable to save time and distance, as Valverde did in 1719 and as Thomas assumed Villasur himself did in his 1924 reconstruction (see Figure 4-2) (Thomas 1935). If this route was followed by Villasur, then a total overall distance of only 475 kilometers (113.1 leagues) to El Cuartelejo and 930 kilometers (221.4 leagues) to the forks of the Platte is arrived at (Figure 4-6), a figure fully 36% smaller than Villasur’s three hundred leagues. Again, while the marching distances measured within the Google Earth environment are of necessity approximate, the assumptions and unknowns in Thomas’ 1924 analysis cast doubt on the viability of a Colorado location for El Cuartelejo. Shine’s route analysis provides an alternative perspective (Figure 4-7). Utilizing the western Kansas El Cuartelejo location and the Pawnee trail north from Kansas to Nebraska, this hypothetical route meets the Platte River roughly 97 kilometers (23.1
leagues) southwest of the confluence of the Loup and Platte Rivers. Shine’s path gives a marching distance from Santa Fe to El Cuartelejo of 635 kilometers (151.2 leagues), agreeing very closely with the distance Ulibarri must have traveled to reach the settlement. While Ulibarri describes the majority of his daily marches as being to the north (Thomas 1935), the requisite northeast heading to arrive at a western Kansas El Cuartelejo does not refute this information, which depends entirely upon Ulibarri’s definition of a generally northerly direction.

![Figure 4-6. Google Earth reconstruction of Thomas’ proposed route for the Villasur Expedition. Note the absence of Ulibarri’s lengthy march to the east after leaving Taos (see Figure 4-5). This adjustment further shortens a route that already falls well short of Villasur’s stated total of three hundred leagues.](image)

The total marching distance from Santa Fe of Shine’s route at its initial intersection with the Platte River is roughly 1,070 kilometers (254.8 leagues). While closer than Thomas’ route, this total is again well short of Villasur’s three hundred leagues. Yet after reaching the Platte River, Shine’s route depicts Villasur as crossing to the north of the
stream and continuing northeast for approximately 62 kilometers before arriving at the Loup. The distances given in the Villasur diary makes it clear that the expedition traveled only three leagues (12.6 kilometers) after leaving the Río Jesús María before arriving at the second river. Although the courses of the Platte and Loup Rivers have altered to some degree in the nearly three centuries since the battle (as will be explored in a later chapter), shifting the point of the expedition’s crossing the Platte eastward until only three leagues separate the two rivers addresses two issues. First, the path of Villasur’s command then correlates much more closely with the distances given in the diary fragment, and second, the move partially compensates for the total marching distance discrepancy between Shine’s route and the Villasur written record (Figure 4-8).

Figure 4-7. Google Earth reconstruction of Shine’s proposed route for the Villasur Expedition, utilizing the Kansas location of El Cuartelejo and a Pawnee trail north from Kansas to Nebraska. Note the intersection with the Platte at a point well to the southwest of the battle site.

If this alternative scenario is considered, the expedition would have reached the southern bank of the Platte River after marching north along the Native American trail
from Kansas, then followed the river to the east for 87 kilometers (20.7 leagues) until crossing to the northern bank. This route obviously raises the identical issue noted in Thomas’ route of the expedition traveling along the river for some time without noting a viable ford, necessitating that the Native American guides locate one. Yet 87 kilometers without noting a ford is perhaps slightly more plausible than 270 kilometers, and in either event the total marching distance of Villasur over the revised route of Shine is significantly closer to the stated three hundred leagues than in Thomas’ hypothesis. While the latter’s 221.4 leagues remains 26% short of the Villasur records, the modified Shine route has a total marching distance of 1,157 kilometers (275.5 leagues), only 8% short. Noting once again that a hypothetical two-dimensional route does not take into account potential detours necessitated by unsuitable topography, the Shine route represents the most suitable course yet for the Villasur expedition to have followed.

Figure 4-8. Modification of the northern end of Shine’s proposed Villasur route in Google Earth. In this scenario, the expedition follows the south bank of the Platte River until roughly three leagues (12.6 kilometers) separate the Loup and the Platte rivers. The end of the yellow line represents the start of the Villasur diary on August 6, 1720.
Finally, the Villasur route mapped by Phillips in 2009 deserves consideration. While favoring El Cuartelejo’s Kansas location, Phillips depicts the expedition as following a gently meandering, generally northeastward course for the entire march from Santa Fe. In this scenario, after pausing in Kansas Villasur continues northeast without following an established Native American trail along the ridge tops, arriving near the Platte/Loup confluence directly without shadowing the riverbank for any appreciable distance (Figure 4-9). This path has a total marching distance of roughly 1,075 kilometers (256 leagues) from Santa Fe, which is very comparable with the unmodified Shine route. However, while after this marching distance Shine’s course was still well short of the presumed starting point of the diary from which the three hundred league distance was measured, Phillips’ route ends at the Platte/Loup confluence. As such, while the modified Shine route ending at the diary’s starting point is only 8% short of Villasur’s three hundred leagues, the Phillips route remains roughly 15% short.

Figure 4-9. Google Earth reconstruction of Phillips’ proposed route for the Villasur Expedition. Note the absence of a sharp northward turn in central Kansas signifying the use of established Native American trails, and the end point at the Loup/Platte confluence.

The observation that all three routes are between 8% and 26% shorter than Villasur’s self-assessment of the distance traveled in 1720 may be explained by one or a
combination of two factors. First, Villasur’s total of three hundred leagues may have been inaccurate, possibly caused by an overestimate of the expedition’s marching distance due to uneven topography. Perhaps more likely is the second alternative: that the three Google Earth analyses performed here are all subject to a varying degree of underestimation of distance traveled, due again to the two-dimensional measurement of paths that in reality traversed a three-dimensional surface.

While there exists the possibility that the overall measured distances of the three routes are therefore slightly underestimated, the comparison of the hypothesized paths has nevertheless produced the desired result. Thomas’ route displays the greatest shortfall in distance by a wide margin, its disparity of 26% with Villasur’s three hundred leagues being nearly twice that of Phillips’ 15%. Added to this is the fact that the Scott County location for El Cuartelejo is associated with the discovered ruins of a pueblo, the archeological investigation of which has yielded evidence of both contemporaneous habitation with the Ulibarri and Villasur expeditions and trading activities at the site between Native Americans and Spanish colonists (National Park Service 2008). In addition, the eighteenth century Surville and Alzate maps clearly placed the Cuartelejo Apache in western Kansas (Champe 1949). The archeological evidence coupled with the results of the above geospatial analysis is enough to safely put to rest the hypothesis for a Colorado El Cuartelejo location, as well as the contention that the destruction of the Villasur expedition took place near the forks of the Platte.

The most probable route followed by the Villasur expedition is likely a slight modification of the route proposed by Shine (Figure 4-10). Following its brief sojourn at El Cuartelejo, the command likely marched east through Kansas along the Smoky Hill
River. Upon reaching present-day Russell County, the Apache guides from El Cuartelejo led the force north along the established Native American trail in the area, running upon the ridge tops dividing stream drainages. Crossing into Nebraska, the Platte River was possibly first reached just to the south of the location of Grand Island, Nebraska. Villasur’s command then followed the Platte eastward until August 6, when the diary began and the expedition crossed the river to begin the sequence of movements that led to its destruction a week later.

![Figure 4-10. The ideal route for the Villasur Expedition, reconstructed in Google Earth. Largely based on Shine’s proposed route, this path utilizes the Native American trails of central Kansas and follows the Platte River to the east until the crossing of August 6, 1720.](image)

The modified Shine route described above is closer in length to Villasur’s recorded marching distance from Santa Fe than either the unmodified Shine route or that proposed by Phillips. Furthermore, there is a high probability that Villasur followed established Native American transportation routes for efficient travel, having just recruited Apache guides in El Cuartelejo for this purpose. José Naranjo and Jean L’Archeveque had also each been at least as far north as El Cuartelejo on the Ulibarri and Valverde expeditions,
and may have also been able to provide this useful route advice (Brandon 1990; Phillips 2009; Thomas 1935). The chaotic orientation of ridge tops in the Central Plains made traversing the divide between stream drainages the ideal choice for efficient travel (Blakeslee and Blasing 1988) and the Native American trail running south to north through central Kansas would have both served this need and been a thoroughfare known to the Apaches of nearby El Cuartelejo. Finally, a brief period of eastward travel along the southern bank of the Platte River is the most logical means to bridge the gap between the end of the Kansas-Nebraska trail and the point where the diary begins; the command was clearly crossing the river for the first time on August 6, and the Platte and Loup were only three leagues apart at that time (Thomas 1935).

A confident determination of the site of the Villasur Expedition’s destruction was necessary before the commencement of any archeological assessment of its material remains. While an initial attempt to conduct an ArcGIS analysis of potential Villasur routes did not prove feasible, a two-dimensional Google Earth assessment using the software’s integrated path creation tools allowed such a determination to be made. In every case, hypothetical expedition routes traveling through a Colorado El Cuartelejo location were proven to have traversed much shorter distances than marched by Villasur during the actual 1720 campaign. Routes via the El Cuartelejo location in Scott County, Kansas, were consistently closer in length to the marching distances of the historical route, though also shorter overall than Villasur’s measurements. A slight underestimation of marching distances may be accounted for by Google Earth’s not including potential detours necessitated by topographical features. The completed geospatial analysis indicated that the hypothetical Villasur route that most closely approximated the known
marching distances, results of archeological investigations, and historical transportation patterns on the Great Plains was a modified version of a path proposed by M. A. Shine. This route clearly indicated that the destruction of the Villasur Expedition took place at the confluence of the Loup and Platte Rivers in eastern Nebraska, providing a location at which to concentrate an archeological survey.
Chapter 5

The Segesser II Hide Painting

The destruction of the Villasur Expedition is distinct among many other military events in colonial North America in that the engagement has been depicted in a contemporary artistic work composed soon after the battle. Designated Segesser II after the first known individual to hold possession of the piece, the artwork is a large painting on tanned animal hide. Depicting a military engagement taking place at the confluence of two rivers, the painting contains nearly two hundred individual human figures divided into attacking and defending groups. The centerpiece of the action is a group of soldiers surrounded on all sides, firing flintlock muskets and brandishing swords at encroaching Native American and European attackers. At the far right of the surviving portion of the painting, a group of mounted horsemen of similar dress and armament of the surrounded men are visible riding toward the main action (Chávez 1990; Hotz 1991).

Segesser II is an artistic achievement of great historical value in its own right, due to the scarcity of contemporary depictions of colonial events in the American Southwest (Chávez 1990). Yet it also represents a unique source of information for an archeological investigation of the Villasur battle site, as the painting has been universally accepted since 1970 to depict the destruction of the expedition at the hands of the Pawnee (and possibly the French) (Chávez 1990; Hotz 1991; Phillips 2009). More specifically, the painting contributes to such an analysis in three respects: first, following an assessment of the accuracy of the weapons, uniforms, and accoutrements depicted, Segesser II is invaluable in characterizing the archeological assemblage likely to be present at the site. This characterization is arrived at through a comparison of events depicted in the painting...
with the available historical sources, lending credence to these events and allowing models of archeological deposition patterns in military conflicts to be applied. Secondly, the depiction of vegetation in the painting may be analyzed to exhaust any further information it can provide on the location of the engagement. Finally, given the paucity of primary sources supporting the presence of French fighters at the battle, the painting helps to resolve the question of the participation of the French in the destruction of Villasur, further characterizing the assemblage likely to be present at the site.

Characteristics and History of the Segesser II Hide Painting

As it exists today, the Segesser II painting is 5.18 meters in length by 1.37 meters in height (17 feet x 4 feet 6 inches) (Chávez 1990). The body is composed of three tanned animal hides, stitched together with sinew. There exists some disagreement on the genus of animal from which the hides were obtained: Gottfried Hotz states in his seminal book on the subject that the skins are buffalo or cow hides, and Thomas E. Chávez suggested either elk or bison hides in 1990. A 1983 examination by Hans Läng of the Ethnographical Museum of the University of Zurich, however, definitively identifies the skins as bison hides, due to their being tanned with brain matter and saguaro cactus seeds in the Native American method of hide tanning. This analysis also supports the hypothesis of the painting being the work of a Native American artist (Chávez 1990; Hotz 1991; Läng 1983).

An initial hypothesis for the painting’s origin was that it had been commissioned by Governor Valverde during his trial in the 1720s as supporting evidence for his version of the events surrounding the expedition. Chemical analysis of the pigments of the painting
in the 1980s, however, revealed the presence of Prussian blue, which (not being readily available over a wide area until after 1730) indicates a slightly later date of origin for the hides (Gallagher 1986). Overall, the color pigments that make up the Segesser II painting are earth tones, possibly augmented with and supplemented by vegetable dyes (Läng 1983).

Segesser II depicts a battle in progress on the point of land created by the confluence of two rivers. A total of 191 human figures are represented, with an attacking force comprised of Native Americans and European soldiers entering the scene from the left, crossing the lower of the two rivers, and assaulting a defending group of Native Americans and Europeans that are depicted in the center and right side of the painting (Figure 5-1).

Figure 5-1. Overall view of the Segesser II reproduction on display at the Nebraska History Museum in Lincoln, Nebraska. A few attackers have been omitted at the far left to improve the clarity of the main scene. Photo by the author.

A central defending group in an encampment is the focal point of the entire scene; these individuals have been completely surrounded by the attacking force that originates from the left, passes along the upper and lower edges of the encampment, and completes the envelopment to the rear. The defenders are partially protected by a makeshift breastwork in the form of saddles and other miscellaneous equipment that extends in a
semicircle around the upper edge of the camp. This defense is in the midst of being compromised, as several of the attackers are depicted clambering over the breastworks, and a few are already inside the perimeter. Most of the surviving defenders in this section of the scene have been compressed into a compact mass, firing their muskets in all directions at the attackers that are approaching among the tents of the camp and from the direction of the breastworks (Figure 5-2).

![Figure 5-2. Detail view of the defenders' encampment on the Segesser II reproduction at the Nebraska History Museum. Note makeshift breastworks and compact defensive formation. Photo by the author.](image)

At the extreme right edge of the painting, a counterattack is in progress. At least ten riders, leading a group of unsaddled horses, are riding to the left toward the main battle (Figure 5-3), with one European soldier and one Native American already firing a musket and arrow at the forces attacking the encampment. The size of the horse herd and number of soldiers in the counterattack is unclear, as the painting has been torn at this point. Overall, the force attacking the encampment is clearly winning the engagement; of the
seventeen figures depicted as dead or dying in the painting, twelve are defenders, with only five attackers having been visibly injured (Figure 5-4).

The Segesser II painting first entered the historical record in 1758, when Father Philipp von Segesser von Brunegg, a Jesuit missionary in Sonora, Mexico, dispatched a box to his family in Switzerland. Among the items contained in the box were “three colored skins” obtained by the priest (Hotz 1991:9). Although the package suffered a lengthy delay in Veracruz before departing for Europe (commented on by Segesser in several letters), the skins finally arrived in Switzerland sometime in the early 1760s. Following their acquisition, the paintings remained in the possession of the Segesser family for the following two centuries. Though Father Philipp’s letters make clear that he originally dispatched three hide paintings to his family, only two have survived to the present day, Segesser II and Segesser I (which depicts an attack by mounted warriors on a fortified Native American encampment in a wooded area) (Chávez 1990; Hotz 1991).

The Segesser family evidently used both paintings as decorations at some point after their acquisition. While Segesser II is the more complete of the two, it still possesses traces of glue on the back and nail holes around the borders, perhaps indicating that it was mounted in some way. Gottfried Hotz, a Swiss professor and curator, first began studying the paintings in 1945, and after decades of research and travel was able to identify Segesser II as depicting the destruction of the Villasur Expedition due to the concurrence of the events portrayed with the available source documentation. Subsequent research has largely supported this interpretation. Hotz’s book on the Segesser paintings was first published in English in 1970 after being initially released in German, and

Figure 5-3. Detail of the combined Native American/European mounted counterattack at the extreme right of the Nebraska History Museum Segesser II reproduction. Note the uneven ending of the painting, marked by a tear in the original. Photo by the author.

Figure 5-4. Detail of the death of one of the defending soldiers on the Nebraska History Museum Segesser II reproduction. The impending victory of the attackers is signaled by the fact that the vast majority of dead or dying individuals in the painting are members of the defending force. Photo by the author.
Beginning in 1984, staff at the Palace of the Governors in Santa Fe, New Mexico, began a dialogue with Dr. André von Segesser, the owner of both paintings at the time. A two-year process of discussions with an amenable von Segesser and inspections of the hides to ensure their condition allowed transportation overseas resulted in both paintings arriving in New Mexico in March 1986 for display at the Palace of the Governors. Original plans for a temporary exhibition evolved into a program for outright purchase, and since 1988 the hides have been on permanent display at the Palace of the Governors in Santa Fe, located on the Plaza from which the Villasur Expedition departed for Nebraska nearly three hundred years ago (Chávez 1990; Fontana 2000; Läng 1983). An exact reproduction of the Segesser II painting created by Curt Peacock on cowhide using replica natural dyes is on display at the Nebraska History Museum in Lincoln, Nebraska (Chávez 1990), and is the source of the Segesser II detail views utilized in this chapter.

**Accuracy of Depicted Events, Uniforms, and Equipment**

The artist of the Segesser II hide painting remains unknown. Suggestions have been put forward that the hides may have been commissioned by the de Tejeda or de Anza families (the former known to have been New Mexican painters and the latter close with Philipp von Segesser von Brunegg) (Fontana 2000; Gallagher 1986), but to date no theory has achieved universal acceptance. The artistic influences evident in the work’s composition provide circumstantial evidence in support of an informed hypothesis for the painting’s geographic origin, however.

Since Oñate’s settlement of New Mexico in 1598, Franciscan missionaries in the area had utilized tanned hides and dyes for painting instead of conventional European canvas.
and oil paints, as a means of compensating for the shortage of materials often encountered in New Mexico. Yet while this demonstrates that the medium was known to contemporary Spanish artists, the Franciscans almost exclusively devoted themselves to religious subjects in their compositions (Hotz 1991). The presence of an elaborate baroque floral border framing the action of the painting is a clear indication of European artistic influence (Fontana 2000; Hotz 1991; Rodee 1965), yet the reduced use of perspective and the majority of the figures being seen in profile is reminiscent of Native American art of the Southwest (Figure 5-5) (Rodee 1965). In addition, although inconclusive, the Segesser hides are similar in some respects to Spanish manuscript art, which are pictorial depictions meant to illustrate specific events and be dispatched to political officials with explanatory documents (Chávez 1990). Thus, while the paintings are likely of too late an origin to have been commissioned by Valverde himself as a trial exhibit, they may have originally served a similar political purpose. Overall, Segesser II represents a hybrid of Spanish and Southwest Native American artistic influences, and is painted in a medium well-known in the region. It may be safely said to be the work of an artist residing in or near New Mexico, and (as discussed below) privy to knowledge about Spanish military equipment and the testimony of the survivors of the Villasur Expedition who made their way back to Santa Fe.

The likely origin for the artist is supported by the fact that the painting’s depiction of the clothing, weapons, and accoutrements of the Spanish soldiers and Native American allies is remarkably accurate. The Spanish soldiers are shown wearing the leather cuera of mid-thigh length, being visible most clearly on several individuals in the central defensive formation. What design details are visible are in accordance with what is
known about the garment, including its sleeveless construction and seams closing the leather at the shoulders. Most of the Spaniards in the central group also hold an *adarga* shield, in every case correctly holding it by a strap with the left arm. The scale of every *adarga* is also in keeping with the known size of the shield of roughly two feet square (Faulk 1971). Virtually every living Spanish soldier holds a flintlock musket, with one of those held by a soldier in the front of the central group perhaps displaying a distinctively Spanish Catalan stock design. It is possible that Spanish ring-topped flint screws are also present on many muskets, but the small scale of these details in the painting precludes a definitive identification (Figure 5-6). On one horseman, a uniquely Spanish iron cruciform stirrup is visible (Figure 5-7) (Chávez 1990).

![Figure 5-5. Detail of the left-side border of the Nebraska History Museum Segesser II reproduction.](image)

The presence of both the elaborate floral border and human figures that are predominantly depicted in profile are excellent indications of a hybrid Spanish-Southwest Native American artistic influence in the composition of the painting. Photo by the author.

The Native American allies of the Spanish are equally well-rendered. Distinct from the Pawnee attackers through their absence of body paint, a few Pueblo and Apache allies are visible among the soldiers of the main group, but most are in the right side of the painting, near or among the mounted riders. Each Native American ally also wears a
leather coat, the visible design details appropriate for what is known of the Native North American leather armor tradition; the few right-side profiles for the allies make it unclear, however, whether the right side of the leather coats are open and fastened closed, as would be correct for this garment (Secoy 1992). Every Pueblo or Apache ally, rather than firing a flintlock musket, is armed with a bow and a number of arrows, usually stored in a quiver on the back. As was detailed in Chapter 3, the combination of Spanish supply difficulties and their fear of further Native American revolts resulted in the Apaches and the Pueblos typically being armed with the bow and arrow in combat, though they were not averse to employing muskets when they could obtain them (Schilz and Worcester 1987).

Perhaps the clearest evidence of the artist’s familiarity with Spanish and Southwest arms and armor are the figures of two Native American allies in the bottom right of the painting. Both of these individuals are armed with a bow and arrow and wearing a leather coat, with the left figure in the midst of drawing an arrow for firing and the right walking away from the battle scene. Although the latter individual is seen bleeding from his right hand or arm, neither figure appears incapacitated or is depicted to be in distress like any of the dead or dying battle participants throughout the painting. This observation is significant because both Native American allies have been struck by multiple arrows, with the coat of the left figure displaying the fletched ends of ten embedded projectiles and the right figure having been hit by at least nine. An additional arrow is depicted in flight about to hit the individual drawing his bow (Figure 5-8). Every arrow is protruding from the leather coat of the defenders, and it is evident that (with the possible exception of blood being drawn from the right figure) the coats have stopped the incoming missiles.
This was precisely why the *cuera* and other types of leather armor were constructed in such a manner, with multiple thick layers of leather intended to blunt the impact of projectiles, particularly arrows (Faulk 1971; Secoy 1992). Such a depiction is excellent evidence for the artist being familiar with the design, operation, and effectiveness of the leather armor of the Southwest. While it is possible that word of the military dress of the Spanish and their allies may have traveled by word of mouth, it is less likely that an accurate depiction of the effectiveness of their equipment would have been able to be portrayed by one not familiar with it.

![Image of leather armor and weapons]

*Figure 5-6. A close view of the central group of defenders on the Nebraska History Museum Segesser II reproduction. Note the *cuera* worn by each individual and *adarga* grasped in the left hand of many. The sword hilt at far right is appropriate for the period, and the musket stock at bottom left may represent a distinctively Spanish Catalan design. Photo by the author.*

![Image of iron cruciform stirrup]

*Figure 5-7. At left is an example of a Spanish iron cruciform stirrup (Chávez 1990:104). At right is a similar example in use by a Spanish soldier as depicted in the Nebraska History Museum Segesser II reproduction, photo by the author.*
Every attacking French soldier is wearing a uniform coat and either a tri-cornered hat or conical cap, as well as carrying a flintlock musket. The coats are broadly similar to those worn by the regular French army in the early eighteenth century, roughly knee-length and with broad, loose cuffs. No buttons are visible, however; the French infantry coat of the period was buttoned down the entire front, with buttons present on the cuffs as well (Chartrand 1988). Many soldiers wear swords, powder horns, and cartridge boxes of generally correct design and in the proper locations (Figure 5-9). Yet for all these accurate details, the very uniformity of the French soldiers in Segesser II indicates that the artist was less familiar with French military organization in North America than he or she was with the Spanish. While the soldiers and allies from New Mexico are accurately depicted in their dress and the design and function of their equipment, the attacking soldiers appear to have been intended to present a generalized “French” appearance that
is distinctly at odds with what is known of the French military forces on the Great Plains at the time of the battle.

There are at least ten cuff/coat color combinations visible among the attacking French forces, including the colors red, blue, yellow, brown, orange, and gray/light blue. This gives the French soldiers in Segesser II a somewhat heterogeneous appearance, despite their homogeneity in dress. However, in the French Army of the early eighteenth century, coat and cuff colors designated different units, and sometimes units of different nationality serving in the French Army. These colors were often assigned according to the region in which a regiment served. For example, in the French Army of the period, brown, red, and blue coats (of which there is several of each in Segesser II) were associated with French regiments serving in Italy, Switzerland, and Germany respectively (Chartrand 1988).

Furthermore, the presence of uniform coats in the painting implies the involvement of regular French military units in the battle. As explored in Chapter 3, the independent companies comprising the regular military forces of New France were concentrated in the urban areas of the St. Lawrence River valley and on the border with the British colonies of the eastern seaboard. What garrisons of regular troops there were along the Mississippi River were stationed in small groups at frontier forts, hundreds of kilometers to the east of the likely site of the Villasur battle (Chartrand 2004; Slatta 1998). While (as discussed below) there remains the possibility that French traders were involved in the engagement, the imprecise uniform details and the improbability of such a large number of regular units being in the area at the time casts doubt on the accuracy of the depiction of French soldiers in the Segesser II painting.
Figure 5-9. At left is a close view of two French attackers on the Nebraska History Museum Segesser II reproduction. At right is a detailed depiction of the dress of the French Army of the period (Chartrand 1988:32). While the headgear, coat design, and accoutrements are broadly accurate, coat color information casts doubt on the depiction of the French soldiers in Segesser II (see text). Left photo by the author.

Hotz (1991) notes that it is not possible to identify the Native American attackers from the information present in the painting, and the features that are visible are indeed not unambiguously identifiable as Pawnee. All of the attackers are nude, except for four figures who wear sashes. The majority are armed with bows and arrows, with a number carrying melee weapons such as spears, swords, and axes. The most distinctive feature of the Native American attackers is their multicolored body paint, which is universally present in a variety of colors and designs, along with brown headbands that typically display a knot hanging down on one side of the head. The size and double-curved construction of most of the bows correlate with what is known of contemporary Pawnee weaponry, but are also features found among tribes elsewhere on the Great Plains. Shields used by Native Americans on the Plains were typically round (Hotz 1991:166), but eight individuals among the attackers hold shields of oval or rectangular shape. The
use of iron swords and axes by the attackers indicates that they have engaged in trading activities with Europeans, but only the French soldiers utilize muskets (Hotz 1991).

In the Pawnee of the nineteenth century, face painting was known in both ceremonial and martial contexts, using soot and natural pigments. Knotted headgear was also used for at least ceremonial occasions (Weltfish 1965). The known use of body paint and knotted headgear among the Pawnees makes it distinctly plausible that the attackers depicted in the Segesser II painting are members of the Skidi Pawnee, who resided in the area surrounding the Platte-Loup confluence at the time of the expedition’s arrival. This identification must remain hypothetical, however, as there remains no unequivocal confirming evidence that the figures in the painting are indeed Pawnees.

The swords wielded by soldiers of both sides in the painting are quite distinct. Only one Spanish sword is clearly visible, held by the figure at the extreme right of the central group (see right of Figure 5-6). This sword is clearly a rapier design with a cup hilt, entirely in keeping with the pattern favored by Spanish foot soldiers at the time (Brinckerhoff and Chamberlain 1972). The swords of the attackers are more difficult to classify. More than two dozen of the Native American attackers (though none of the Europeans) are shown holding curved single-edged cutlasses or sabers. Though all are curved, their hilts vary in design, with some examples having cup hilts, some flat, and some displaying a prominent crossguard. The provenience of these swords is unclear; the hilts of French infantry swords were similar to British models until the middle of the eighteenth century, and had a flat bilobate counter-guard rather than a cup hilt. The blades of French swords also remained straight until the adoption of a new curved grenadier sword in 1747 (Peterson 1956). This ambiguity in sword types may be another
indication that the arms and accoutrements of the Spanish and Spanish-allied participants in the battle were portrayed more accurately than those of the French and Pawnees.

Digital photographs of the trees and shrubs visible on the left side of the painting were e-mailed to Assistant Professor William Hoch in the Department of Plant Sciences and Plant Pathology of Montana State University in Bozeman, in an attempt to determine whether particular species could be identified to support the likely battle location of the Loup-Platte confluence (see Figure 5-5). The plant ecology of the Columbus and North Platte regions is distinctly different (North Platte being much more arid than the Midwestern Columbus climate), so the basic goal of the analysis held promise. Unfortunately, Professor Hoch’s interpretation was that while the scale of the trees is likely too small for cottonwoods and that their wavy trunks could possibly represent elms, it is more likely that the foliage was an abstract depiction of generalized plant growth that was not intended to represent the actual landscape of the battle site (William Hoch, personal communication 2011). This may be additional evidence supporting the hypothesis of a Southwest artist for Segesser II. A Plains Native American or French artist familiar with the area would conceivably have been capable of depicting accurate vegetation, while a Southwest artist would have had no knowledge of the climate of Nebraska and populated the hides with abstract plants or Southwest-specific foliage. Such an artist would, however, remain familiar with local military equipment design and operation.

Finally, the events depicted in the Segesser II painting correlate very well with survivors’ testimony about the destruction of the Villasur Expedition. The battle is depicted as taking place on a point of land created by the confluence of two rivers or
streams. If these rivers are the Platte and Loup, as was proven to be likely in the previous chapter, then the scene is being viewed from the north bank of the Loup with the viewpoint facing south. The attackers are approaching from the east, the direction in which laid the Pawnee village mentioned in the expedition diary, and from which Villasur had retreated the day before (Thomas 1935). If the diary is correct in placing the village on the south bank, however, then the attackers in the painting must have crossed to the north bank for the approach, as they are depicted crossing the Loup from the north onto the point of land (see Figure 5-5). Whether this was true deception on the part of the Pawnee attackers or merely artistic license on the part of the painter’s creator (as it may be, given that the trees in the painting would have obscured figures crossing from the south) is unknown.

As mentioned above, makeshift breastworks comprised of saddles and other miscellaneous equipment partially protect the defenders’ camp, many of the attackers being depicted as having to step over it to enter the inner perimeter. If the attack was truly as sudden and without warning as the sources imply, then it seems unlikely that the Spanish force would have had time to erect any sort of defense. It is possible that this equipment, while fortuitously providing a modicum of cover during the battle, was simply placed where it is depicted as the horse herd was unburdened for the night, without regard to its defensive value. Villasur himself is depicted lying just above one of the tents of the camp, easily recognizable in his red coat with gold braid, apparently dead. This corresponds to the account that Villasur died within the first few volleys and not having the chance to assume command of the defense (Thomas 1935). Father Minguez is visible rushing from the right of the painting toward the beleaguered center, his cloak
held over his head for defense (though it has already been struck by two arrows). The priest seems thus far uninjured in the Segesser II depiction, though he has one arrow seemingly embedded in his left shin and it is known he did not survive the battle (Figure 5-10) (Thomas 1935).

Figure 5-10. Close views of Villasur (left) and Father Minguez (right) on the Nebraska History Museum Segesser II reproduction. In contrast to a romanticized “last stand” depiction, Villasur is accurately portrayed as having been killed in a relatively early stage of the battle. Photos by the author.

The Spanish forces being split into two groups is also in keeping with the testimony of survivors. While the majority of the central group was apparently surrounded and killed, another force had been in pursuit of the horse herd, which had bolted after being startled by the initial volleys of musketry (Thomas 1935). Those who retrieved the herd are depicted riding back into the scene at the right, just to the left of the point at which the original painting was torn off (see Figure 5-3). The 1726 testimony of Phelipe Tamariz, a surviving squad leader, is especially clear on the activities of this group. After having reasserted control over the horses, the force was able to repel three separate assaults from the attackers. They were eventually forced to flee, but were first able to rescue three defenders who had escaped the central surrounded group (Thomas 1935:230). Two
horsemen are depicted in the painting as firing at and riding down attackers, giving aid to the surrounded group in the camp.

Taken as a whole, the Segesser II hide painting represents an accurate depiction of the known events surrounding the destruction of the Villasur Expedition. The major events in the painting, including the direction from which the main attack originates, the central surrounded camp, the death of Villasur, and the return of the scattered horse herd, correspond with survivors’ accounts of occurrences during the battle. The location at the confluence of two rivers is also appropriate. Thus, the entirety of what is known of the painting’s origin, composition, artistic influences, and events depicted conclusively indicates that a Spanish or Southwest Native American artist created the work. Aside from the Spanish influences evident in the floral border, a French or Plains Native American artist would not have had access to the testimony of survivors, and events painted from these perspectives may have approached but would not likely have matched Spanish accounts of every major event.

The accuracy of the weapons, armor, and uniforms depicted also support a Southwest origin. As discussed above, correct details of the structure and operation of contemporary Spanish and Southwest Native American weaponry and leather armor are present in all cases. The adarga shields are accurately scaled to the scene, the protection afforded by the force’s thick leather armor is illustrated, and a distinctly Spanish cruciform stirrup is visible. In contrast, the attacking French forces are all depicted in regular French Army uniforms of a variety of colors that would normally be worn by units stationed in geographically disparate locales. The unlikelihood of regular French attackers wearing such uniforms, as well as being present in such numbers at all given their sparse
distribution on the Great Plains at the time, has been addressed. The swords wielded by
the Native American attackers are of uncertain origin, again suggesting a lack of
specificity on the part of the artist in depicting equipment with which he or she was
unfamiliar.

Hotz (1991) suggests that the presence of oval or rectangular shields amongst the
attackers may indicate that some Missouri or Oto Native Americans were also present.
Pierre Dugué de Boisbriand, the commander of French forces in the province of Illinois
at the time of the Villasur expedition, appears to have been among the originators of the
Oto participation theory, writing in November of 1720 that Villasur’s force had
“destroyed five nations” on its march north (Hotz 1991:194). While attempting to do the
same to the Oto, the latter met the Spanish and destroyed them after having been warned
of Villasur’s approach by the Pawnee. Given the fact that none of the survivors’ accounts
mention Oto participation (Thomas 1935), the doubtful tale told by Boisbriand and the
minimal evidence of oval or rectangular shields from Segesser II, it must be concluded
that the Oto had no part in the destruction of the Villasur expedition. Indeed, despite
allowing the possibility of Oto involvement, Hotz notes that a genocidal mission on the
part of the Spanish would have been the opposite of the desired conduct of a
reconnaissance expedition, which all evidence points to the 1720 campaign as being
(Thomas 1935).

**Considering the Participation of the French**

The question of regular French troops participating in the battle has multiple facets.
First, Boisbriand’s letters in the immediate aftermath of the engagement would seem to
argue against their involvement. It is true that blaming the Oto would provide a convenient scapegoat to cover up the actions of French troops, but to what end would Boisbriand cultivate this falsehood in his letters? Furthermore, the likelihood of a large contingent of regular French troops being available to attack the Spanish has already been explored.

Yet there remains another possibility. French fur traders and woodsmen, known as *coureurs de bois*, had been subsisting along the Mississippi River for much of the last half of the seventeenth century. A 1696 ordinance of King Louis XIV forbade settlement in the Great Plains and ended the fur trade (Briggs 1990; Hanson and Harmon 2011), and resulted in many of the *coureurs de bois* surviving by continuing their trade with the Native Americans of the region on an illicit basis. These illegal traders constituted much of Illinois’ European population in the years before the official founding of the province of Louisiana in 1718. Upon the ordinance’s expiration in 1715, many of the *coureurs de bois* elected to settle near the few Illinois missions (which were outside formal French governmental jurisdiction) and continue their activities within the framework of their own village society (Briggs 1990). Thus, there existed a notable population of French traders who were conducting business with the Native Americans of the Great Plains on their own initiative during the early eighteenth century, the actions of whom were not indicative of official French colonial government policy.

Although France and Spain were technically still at war at the time of the Villasur Expedition, it is unknown whether this would provide enough motivation for a group of French traders to attack an official Spanish expedition in order to secure the future of their trading activities. Yet it remains more likely that direct French contact and trading
operations with the Pawnee and other tribes in the area of the battle site were undertaken by independently-operating traders, as opposed to regular French military units that were stationed in small groups at isolated frontier forts (Chartrand 2004). However, if *coureurs de bois* were present at the destruction of the Villasur Expedition, they are not accurately depicted in the Segesser II painting. While their mode of dress varied according to a wide variety of factors including availability of material and personal preference, plant fibers such as canvas, cotton, or linen were often worn. It may safely be stated that formal uniforms were rarely if ever seen among French traders (Morgan 2010).

The depiction of many uniformed French soldiers in the Segesser II painting may be explained by one or a combination of two main possibilities. First, though the presence of Prussian blue pigment in the painting indicates that it likely was composed after 1730 (thus disproving the hypothesis of its being commissioned for Valverde’s trial), the possibility remains that the creation of the hides was politically related (Gallagher 1986). As already mentioned, Thomas E. Chávez has noted Segesser II’s stylistic similarity to Spanish manuscript art, meant for political officials to peruse along with accompanying documents to inform themselves about a specific event (Chávez 1990). It would perhaps be politically expedient to explain the defeat of fully a third of New Mexico’s available troops by there being present a regular French force of superior size, rather than to explore any deeper organizational mistakes, deficiencies of command, or underestimations of one’s adversary that may have lay at the true heart of the matter.

Alternatively, the artist of Segesser II may have been portraying the actual beliefs held by expedition survivors and Spanish officials alike. In their scramble to escape the battlefield, it is unlikely that any survivors would have had the opportunity to examine
their adversaries closely, and those who were closest to the center of the fighting did not survive to provide a clearer picture. Several survivor accounts do indeed describe the French as being present (Thomas 1935), though they fail to mention any details of their dress.

Additionally, a letter written by one Antonio Duran de Armijo to New Mexico Governor Don Joaquín Codallos y Rabal nearly three decades after the expedition also suggests that the involvement of the French may have been truly believed by the residents of New Spain. Written in March of 1748, the letter comprises a warning from Armijo to Codallos about a possible conspiracy between the French and Comanche Native Americans on the New Mexico frontier to infiltrate the province. Recalling the Villasur Expedition as a cautionary tale, Armijo reminds Codallos how the French “ambushed [the expedition] and killed more than thirty of them, soldiers, settlers, and Indians, besides wounding several who reached this said town” (Twitchell 1976:150). Interestingly, at the time of this letter France and Spain were both taking part in the War of the Austrian Succession, this time as allies, but the tone of Armijo’s letter would seem to suggest that goodwill toward the French was not felt by all. Given this climate of conflicting political prejudices and alliances, nothing can be stated with certainty, but the fact that the destruction of Villasur’s force was still being seen as the work of the French nearly three decades afterward would suggest that the depiction of the French in Segesser II was not entirely based on the political expediency of the moment.

In the final analysis, the true reason for the French being depicted as they are may be a combination of the two explanations. In the absence of more concrete evidence, however, it must be concluded that any French presence at the destruction of the Villasur
Expedition was in the form of independently-operating traders, rather than regular French Army troops.

**Implications for the Archeology of Villasur**

With the likely identity of the artist having been established, along with the concurrence of the depicted Segesser II events with the testimony of Spanish survivors, it is likely that the weapons, equipment, and accoutrements visible among the Spanish soldiers in the painting represent an accurate depiction of Villasur's force at the time of the battle. Segesser II, then, is a visual record of the archeological assemblage of the battlefield site at the moment of deposition, with a single major caveat. As will be addressed in much more detail in Chapter 7, there has been increasing attention in recent years to the early post-depositional processes that affect battlefield sites; namely, the looting of the site by the victors left in possession of the field. This process can be expected to be particularly marked at the sites of catastrophic defeats such as the Villasur battle, in which members of the defeated force must flee immediately and rapidly to survive, without recovering their casualties or much of their equipment. In the case of the Villasur site, the Pawnees and any French who may have been present would have cleared the battle site of anything considered to be of value after the Spanish fled, leaving only objects seen to be of negligible value or too small to be noticed.

Beginning with the equipment depicted in the Segesser II painting and anticipating that a period of looting then transpired assists the archeologist in selecting an appropriate survey technique to locate the battlefield. In this case, the items left on the battlefield would include broken or unserviceable components of flintlocks or melee weapons, iron
arrow points, possibly broken horse accoutrements such as stirrups, and many lead musket balls. Leather and other organic fragments (such as torn pieces of *adarga* or *cuera*) would be unlikely to survive three hundred years in the earth except in an anaerobic environment, so their presence should not be assumed.

The majority of the Villasur battlefield assemblage, then, can be expected to consist of relatively small fragments of metal. This is a characteristic common to the vast majority of battlefields from all historic periods in all locations, and is one of the primary reasons that metal detection surveys are typically employed to locate unknown and characterize known battlefield sites (Pratt 2009). Musket balls and arrow points from both the attacking and defending forces can be expected to be present, with the precise caliber of musket balls varying according to the age and precise type of flintlock muskets being used by Villasur’s force (Hanson and Harmon 2011). The presence or absence of distinctly French gun furniture and musket balls may also cast additional light on the role of the French in the battle, though these may also represent trade guns in use by the Pawnees. Finally, of great import to the archeologist of the battlefield is the potential for the painting to define formations that may be visible in the assemblage. For example, the position of the compact central group may be revealed in recovered artifacts by an increased concentration of musket balls in a small area. These possibilities are a very brief primer of the potential archeological record present at the Villasur battlefield, and are intended to emphasize the reasons why a metal detector survey technique near Columbus was considered most appropriate; the archeology of the battlefield is explored in much greater detail in Chapter 7.
The Segesser II hide painting is a unique resource that assists in addressing a variety of research questions. The Spanish or Southwest Native American identity of the artist is indicated by the Spanish artistic influence evident in the painting’s composition and the more accurate portrayal of the events surrounding and equipment of the Spanish defending force when compared with their attackers. This identification imparts confidence in the painting’s ability to characterize the initial archeological assemblage present at the battle site before looting activities, as well as helps resolve the question of French participation. The most useful contribution of the hides to the archeologist, however, is their ability to confirm the utility of a proven survey technique and provide insight into artifact distributions that may be encountered on the battlefield. Having identified the likely battle site and achieved a preliminary characterization of the Villasur assemblage, an appropriate survey area could now be determined.
Chapter 6

A Consideration of the Columbus Site

Chapter 4 detailed the results of a geospatial analysis of the Villasur Expedition’s probable route to Nebraska from Santa Fe, incorporating historical sources in an effort to confirm the conventional belief that the battle took place at the confluence of the Loup and Platte Rivers near Columbus, Nebraska. Having now established the Columbus location to be the likely site of the expedition’s destruction, this chapter presents the results of a March 2011 metal detector survey in the Columbus area to attempt to locate the material remains of the battle.

The first section of the chapter outlines the movements of the expedition during its final week via the same methodology employed in Chapter 4, to determine the location of the point of land marking the Platte/Loup confluence at the time of the battle. These marches were examined separately from those in Chapter 4 because they were not counted by the original diarist as part of the three hundred league journey from New Mexico, and bear more on the determination of a survey area than on the probable route taken from Santa Fe. This investigation determined that the Villasur diary marching distances placed the confluence (and the battle) roughly three kilometers to the east of the current meeting place of the rivers. The second section studies the fluvial evolution of the confluence over the past three centuries in an effort to correlate the predicted 1720 battle location based on marching distances with a roughly triangular-shaped landform immediately to the south. Past studies of the Platte’s channel evolution indicated that this landform marked the Platte/Loup confluence at least as early as 1858, and possibly earlier. As this landform could possibly represent the location of the battle, a combined
University of Nebraska/Platte County Historical Society/volunteer field crew conducted a metal detector survey in March 2011 on the areas of the landform that could be accessed. The survey recovered no battle-related artifacts, as river fluvial action has likely either buried or washed away any artifacts once present in the survey area. However, the highest-probability areas could not be accessed for this survey, leaving much potential for future work.

**Marching from the Platte to the Confluence**

A narrative account of the course of the expedition from the first crossing of the Platte to its final destruction eight days later may be found in Chapter 3. To briefly restate here, Villasur’s force left the vicinity of the Platte on August 8, marching north three leagues (12.6 kilometers) to the Loup. During this journey, a smaller creek one league (4.2 kilometers) north of the Platte was crossed. After reaching the Loup, the command marched three leagues (12.6 kilometers) further east along the river before stopping for the night. On August 9, a march of three more leagues to the east (12.6 kilometers) brought Villasur to the confluence of the Loup with the Platte. At this point the expedition was a total of six leagues (25.2 kilometers) east from their initial crossing of the Loup. Villasur marched eight leagues (33.6 kilometers) further east on August 10 to reach a point opposite the Pawnee village on the south bank. After negotiations failed, the Spanish moved eight leagues (33.6 kilometers) west back to the confluence on August 13, where they camped the night before the battle (Thomas 1935).

The Villasur diary fragment is clear that apart from the three leagues that were marched between the Platte and Loup rivers on August 8, the expedition followed the
course of the rivers on their marches; for example, during the journey east to the Pawnee
village the command received word from a scout that some Pawnees had been sighted
“on the other side of the stream which we were following” (emphasis added) (Thomas
1935:135). Furthermore, all the major events discussed in the diary take place on the river,
and the marching distances given leave little opportunity for a detour away from the
stream. A course shadowing the meandering Loup and Platte rivers is then assumed
throughout the following analysis, and though the rivers’ channels have altered in the
centuries since the events, this approach offers a more accurate route analysis than a
series of straight-line segments would provide.

As in Chapter 4, this investigation utilized the Ruler tool of Google Earth version
6.0.3.2197 in Path mode to aggregate the individual distance measurements given by the
Villasur diarist in August of 1720. The starting point of these measurements was the
endpoint of the ideal Villasur expedition route discussed in the conclusion of Chapter 4
(Figure 6-1). This route was largely based upon that proposed by M. A. Shine in 1924, in
which the command followed established Native American trails north from Kansas to
Nebraska until reaching the Platte (Shine 1924). However, while the original Shine route
had the expedition continue northeast for roughly 62 kilometers after crossing the Platte
before reaching the Loup, the Villasur diary explicitly states that the expedition traveled
only three leagues (12.6 kilometers) between the two rivers (Thomas 1935:135). The
ideal route incorporated the hypothesis that after arriving at the Platte via Shine’s route,
the expedition then paralleled the river to the east until reaching a crossing point where
the modern rivers were three leagues apart. Again, while both rivers have meandered
since 1720, this interpretation provides a starting point that approximates the location
Villasur’s force must have departed from beginning on August 6.

![Route Map](image)

**Figure 6-1.** The ideal route for the Villasur Expedition, reconstructed in Google Earth. Largely based on Shine’s proposed route, this path utilizes the Native American trails of central Kansas and follows the Platte River to the east until the crossing of August 6, 1720. At this crossing point, the modern rivers are three leagues (12.6 kilometers) apart, corresponding with the information provided by the Villasur diary.

The modern Loup and Platte rivers are three leagues apart at a point roughly 4.5 kilometers west of the town of Duncan, Nebraska. If the Villasur Expedition left the Platte River marching north from this position, it would reach the Loup River in exactly 12.6 kilometers. The Villasur diary states that during this three league northward march, the force crossed a smaller stream after traveling one league (4.2 kilometers) from the Platte, noting its water as being quite warm and believing it may have been a tributary of the river they had just departed (Thomas 1935:135). The route originating at the modern position does indeed cross a Platte tributary stream, known as Prairie Creek, on its journey north. However, Prairie Creek merges with the Platte just to the east of the hypothesized route, and is currently only 800 meters north of the main channel of the Platte at this point. Yet it must also be acknowledged that Prairie Creek itself has likely
altered its course over three hundred years, and that this discrepancy in channel separation does not in itself disprove the viability of the route.

In late September of 1924, Addison E. Sheldon, E. E. Blackman, and Frank H. Shoemaker, all of the Nebraska Historical Society in Lincoln, spent two days conducting an informal examination of the lands between the Platte and Loup rivers to the west of Columbus. This study took place shortly after the Villasur diary fragment had come to light through the efforts of Baron Marc de Villiers, and the Historical Society investigators were eager to attempt to match geographical features in the Columbus area with locations mentioned in the 1720 document. Sheldon confirmed that the North Platte location is entirely unsuitable, the branches of the river being too close together to correlate with the distances mentioned in the diary (Sheldon 1924a).

Sheldon’s 1924 Historical Society survey resulted in a conclusion that the stream with warm water that the expedition initially crossed was Warm Slough Creek, near Central City about sixty-five kilometers southwest of Columbus. As noted above, the Platte and the Loup are separated by much more than three leagues at this point, so Sheldon proposed that the second river that Villasur arrived at, rather than being the Loup itself, was in fact Prairie Creek. Extrapolating the diary’s distances from this point, the confluence reached by Villasur would actually be that of Prairie Creek with the Platte River. Sheldon believed that the Pawnee village encountered by the expedition ultimately lay on the Loup River to the west of Columbus, between that city and Fullerton, Nebraska (Sheldon 1924a).

The main problem with Sheldon’s analysis lies in the final eastward leg traversed by Villasur’s force. While the distances traveled by Villasur can be made to correlate with
Warm Slough Creek and Prairie Creek until the latter stream’s confluence with the Platte, the eight league march that brought Villasur from the confluence to the Pawnee village cannot. Specifically, Sheldon’s location on the Loup midway between Columbus and Fullerton is much less than eight leagues from Prairie Creek’s junction with the Platte. As discussed above, the rivers are only about three leagues apart at this point. The only march that would result in an eight league distance between rivers is one which would travel almost directly back to the west, reaching the Loup just to the east of Fullerton. Sheldon’s reading of the diary may in fact mistake the position of an initial sighting of a group of Pawnee on August 9 as the location of the village later arrived at by the expedition, when the latter was in actuality three leagues further east. In either event, while the 1924 survey conducted the first examination of the Columbus area while in possession of Villasur’s actual marching distances, their conclusions do not correlate sufficiently with the diary’s information to indicate a promising search area.

Continuing with the arrival point on the Loup as hypothesized above, combining the expedition’s daily marches on August 8 and 9 gives a total eastward distance of six leagues (25.2 kilometers) traversed along the Loup River. These marches brought the command to the point at which the two rivers met, the same location where the battle would take place five days hence. According to the diary, the Pawnee village on the south bank where the failed negotiations took place was eight leagues (33.6 kilometers) east of this point; Villasur marched from the confluence and reached the village on August 10, and retreated back to the same point on August 13. The total round trip marching distance, from leaving the Platte, following the Loup east past the confluence to the village, and retreating back to the confluence, was 25 leagues (105 kilometers) (Thomas 1935).
The author plotted this route within the Google Earth environment using the aforementioned methods, obtaining a number of useful results. As predicted, the point of confluence derived from the 1720 march data did not correspond with the modern position due to the evolution of the rivers’ channels over time, being situated roughly three kilometers further east. The predicted position of the Pawnee village based on the Villasur marching distances was located approximately two kilometers west of present-day Rogers, Nebraska (Figure 6-2). Though the hypothesized 1720 point of confluence greatly assisted in the delineation of a search area in its own right (see next section), it was the Villasur diary’s location for the Pawnee village that first suggested that the approximate reconstruction of the expedition’s route was producing valid results.

![Figure 6-2. Villasur Expedition route in the area of the Platte/Loup confluence, reconstructed in Google Earth. This path begins at the point where the rivers are three leagues apart and is based upon the march distances given in the Villasur diary fragment. Note the disparity in the two confluence locations and the proximity of the hypothesized Pawnee village location to the actual Linwood site.](image-url)

The author then placed a marker for the Pawnee village within Google Earth on the south bank of the Platte immediately opposite the point on the north bank where the expedition’s marching distances indicated that it was encountered (eight leagues east of the 1720 point of confluence). Upon the examination of existing archeological records, it
immediately became apparent that this hypothetical location corresponded quite closely with that of the extensive Linwood site (25BU1). The Linwood site is located approximately one mile (1.6 kilometers) southwest of the town of Linwood, Nebraska, and three miles (4.8 kilometers) south of the modern course of the Platte River. The majority of the site is situated on a high terrace on the southeastern bank of Skull Creek, a small stream that flows into the Platte further to the east (Carlson 1973; Grange 1968; Steinacher and Carlson 1984). Excavations from the 1930s through the 1960s have revealed the Linwood site to be a large Pawnee occupation site with two primary components, representing at least two and possibly three occupation periods from circa 1725 to 1857 (Grange 1968; Steinacher and Carlson 1984). The Linwood site has been associated by Dr. Waldo Wedel with a large Pawnee village visited by missionaries Gottlieb Oehler and David Smith in 1851 (Wedel 1936), that was described by the latter to be located “on a rising ground, about three miles from the river” and that “near by flows a beautiful stream” (Oehler and Smith 2006:160).

The location of Villasur’s hypothetical Pawnee village determined through the Google Earth geospatial analysis is on the south bank of the Platte River, five kilometers almost directly north of the Linwood site (Figure 6-3). This position was intended to provide an approximate location fix for Villasur’s likely movements along the river in 1720; due to the undoubted evolution of the river channels in the intervening years, it was not expected to represent a precise position at which the Pawnee village was located. Nevertheless, the fact that the geospatial analysis based on Villasur’s stated marching distances placed the village the expedition visited a few kilometers to the north of a known large Pawnee village site represented strong circumstantial evidence that the
Linwood site may be the Pawnee settlement with which the Villasur Expedition conducted its dialogue in 1720. The timing of the campaign roughly coincided with the earliest evidence of the site’s occupation (Steinacher and Carlson 1984). Overall, the mutual proximity of the two village locations provided confirmation that the approximate route reconstruction was producing usable information.

![Figure 6-3. The farthest east point of Villasur's march, reconstructed in Google Earth. This path is based on the marching distances provided in the Villasur diary fragment. The hypothetical Pawnee village site opposite the march’s endpoint is located five kilometers directly north of the actual Linwood site, the location of a large Pawnee village.](image)

The predicted 1720 point of confluence also proved to be promising. Located three kilometers to the east of the modern meeting place of the Loup and Platte rivers, this position corresponds to the place where the expedition spent the nights of August 9 and August 13, as well as where the engagement itself was fought on the morning of August 14. Also based upon the marching distances provided by the Villasur diary fragment, this position should theoretically have been subject to an even smaller margin of error than
the predicted Pawnee village location, as the daily traverses had to be extrapolated over a shorter distance than the latter position. The 1720 confluence location is situated less than one kilometer to the north of a roughly triangular-shaped landform that is visible in Google Earth satellite views and roughly bounded to the south by a small stream and to the north by the current Platte River channel (Figure 6-4).

The results of the route analysis clearly indicated that the 1720 Villasur diary placed the confluence (and the battle) at this location, three kilometers to the east of the modern confluence. The visible landform had the superficial appearance of a possible earlier confluence site that the Platte and Loup channels had since evolved away from, but independent support that this was the location of the 1720 confluence was necessary to justify the time and expense of a metal detector survey. Fortunately, much prior work had been conducted on the historical fluvial evolution of the Platte and Loup channels that could be drawn upon to resolve this question.

**Historical Evolution of the Platte and Loup Confluence**

The Platte is a braided river that originates as two separate branches in the Rocky Mountains of Colorado. The South Platte flows northeastward across Colorado until meeting the North Platte near the Nebraska town of the same name, after the latter stream’s journey north and east through Wyoming. Flowing eastward across Nebraska, the Platte meets the Loup River near Columbus before the combined streams turn southeast and empty into the Missouri River just south of Omaha at Plattsmouth. Upstream of the Loup confluence, the flow of the Platte is driven largely by the spring melting of snow in the mountains of Colorado. These sources of water are supplemented
downstream of Columbus by the discharge from the Loup (Eschner et al. 1983; Kircher and Karlinger 1983). Both the Platte and the Loup are shallow braided rivers, with their channel morphology being characterized during much of the year by multiple narrow streams winding around and between sandbars and temporary dunes. During the spring melt and other periods of high flow, however, the rising water will cover these features and fill the channel from side to side in an uninterrupted stream. The depth of the Platte rarely exceeds two meters in any flow regime, and the channel has historically never been used as a long-distance transportation artery (Eschner 1983).

Figure 6-4. The hypothetical 1720 point of confluence of the Platte and Loup rivers, as reconstructed in Google Earth utilizing the Villasur diary marching distances. At top is a view showing only the reconstructed path and confluence markers. At bottom, the red outline indicates the present location of the Platte/Loup confluence, while the blue outline delineates the rough boundaries of a landform opposite the 1720 location that is hypothesized to represent the point of a prior confluence of the rivers.
Channel evolution in a braided river like the Platte is driven by factors such as sediment deposition and variability in discharge volume (Ginting et al. 2008). Climatic variations have historically had a marked effect on the behavior of the river, with drought conditions periodically causing abrupt temporary narrowing of the active portions of the river (Joeckel and Henebry 2008). The typical seasonal cycles of snowfall and melting in the Rocky Mountains are themselves not consistent from year to year, and natural changes in the Platte’s morphology over time are consequently not entirely predictable.

The primary driver of Platte channel evolution over the preceding one and a half centuries, however, has been human activity. Beginning in the basin of the South Platte in either the late 1830s or early 1840s (Eschner et al. 1983), river water began to be diverted away from the channel for the purpose of irrigating agricultural fields. This process began slowly, with the water being used to directly fill small canals in close proximity to cultivated lands on the floodplain. The Colorado gold rush of the late 1850s greatly increased demand, and this trend continued in the late nineteenth and much of the first half of the twentieth centuries. The large-scale water utilization projects constructed along the Platte in this period centered on natural or artificial reservoirs, in which water gathered during the high-flow spring season was stored for later distribution to agricultural fields in times of low water (Eschner 1983; Eschner et al. 1983; Kircher and Karlinger 1983).

These systems are still in operation, and have resulted in the narrowing of the Platte River relative to its nineteenth-century dimensions for much of the stream’s course through the state of Nebraska. Travelers’ estimates of the river’s width in the first half of the nineteenth century generally fell within the range of 1.6 to 3.2 kilometers (Eschner et
al. 1983:A13). Modern values vary, but have been measured to be as narrow as 10 percent of the 1860 width at the town of Cozad in central Nebraska (Eschner et al. 1983:A30). In eastern Nebraska the disparity is noticeably less; the added discharge from the Loup River has mitigated the loss to some degree, and in eastern counties the Platte channel has only narrowed by roughly eight percent from nineteenth-century values (Eschner et al. 1983; Joeckel and Henebry 2008). The channel narrowing wrought by irrigation in the historical period, coupled with the natural annual variability in snowmelt volume and climatic conditions, have resulted in a general trend of island growth, island accretion to river banks, and the shrinking or abandonment of long-lived anabranches (secondary channels) within the Platte River (Joeckel and Henebry 2008).

In a 2008 study, R. M. Joeckel and G. M. Henebry examined the morphological evolution of the channel of the Platte River in eastern Nebraska, an area that had not received a great deal of attention in earlier investigations. Their reconstruction was based upon the comparison of historical aerial photographs and digital orthophoto quadrangles that had been georeferenced by the authors. The information provided by these resources was supplemented by survey data from the United States General Land Office (GLO), allowing an analysis of channel changes based on historical data as early as 1855. Their study methodology provided sufficient temporal resolution to track small-scale stream changes and map their long-term effects on the overall morphology of the Platte’s channel (Joeckel and Henebry 2008). In addition to confirming the major influence of irrigation-related water diversion on the Platte’s progressive narrowing, the study proved to be of great utility in the development of a Villasur survey strategy, particularly in the results of its examination of the evolution of the Loup/Platte confluence (Figure 6-5).
Joeckel and Henebry’s data indicate that the confluence of the Platte and Loup rivers has indeed migrated over time. The earliest year for which GLO data was available to fix the location of the confluence was 1858, when the meeting point of the two rivers was located approximately four kilometers east of its current location. The shifting of the confluence to its present position took place within the context of the progressive channel narrowing and island accretion associated with the aforementioned flow diversion for irrigation (Joeckel and Henebry 2008). A comparison of the mid-nineteenth century point of confluence with the predicted 1720 position based upon the geospatial analysis derived from the Villasur diary fragment revealed a close correlation between the two positions (Figure 6-6).

Figure 6-5. The results of Joeckel and Henebry’s 2008 study of the historical evolution of the channel of the Platte River, focused on the confluence of the Loup and Platte rivers near Columbus, Nebraska. The confluence position labeled “x1” corresponds with the landform visible in satellite photographs near the predicted 1720 confluence position (see comparison in Figure 6-6) (Joeckel and Henebry 2008:6).
Though the main flow of the Platte River has since shifted to the north, the roughly triangular landform that was once the point of land at the confluence of the Platte and the Loup remains clearly visible in Google Earth satellite imagery, and is situated approximately opposite of the location where Villasur’s marching distances indicated the meeting of the rivers to be. While it must be mentioned again that the reconstruction of Villasur’s march was of necessity approximate due to the uncertainty in the 1720 position of the riverbank and the precise heading followed by the expedition, this close correlation was encouraging.

![Figure 6-6. At top is a close view of Joeckel and Henebry’s 2008 map on the evolution of the Platte/Loup confluence (see Figure 6-5) (Joeckel and Henebry 2008:6). At bottom is a modern satellite view of the same area. While the channel has since migrated, the landform delineating the 1858 confluence is still evident, and is situated nearly opposite the predicted 1720 location based on Villasur’s marching distances.](image-url)
Though the General Land Office surveys available to Joeckel and Henebry only provided specific river morphology information back to 1855, the conclusions by a number of researchers that the major driver of channel evolution for the Platte in the nineteenth and twentieth centuries was diversion of the river’s flow for irrigation activities (Eschner 1983; Eschner et al. 1983; Joeckel and Henebry 2008; Kircher and Karlinger 1983) suggested the potential for stability in earlier eras. Irrigation had only just begun to flourish along the South Platte in Colorado by 1855 (Eschner et al. 1983), and it is probable that climatic and flow variability were the primary governors of river channel evolution in eastern Nebraska at the time. While these factors undoubtedly caused some morphological changes, these were likely to be less chaotic than later human-induced alterations, and the 1858 confluence location in Figure 6-5 may very well have remained stable since at least 1720.

These past investigations of channel evolution in the Platte River indicated that the triangular-shaped landform to the south of the predicted 1720 confluence based on Villasur marching distances was the location of the actual Platte/Loup confluence at least as early as 1858, and possibly much earlier. As this geomorphology information confirmed that the predicted 1720 confluence location based on historical accounts was indeed situated directly opposite from a landform that marked a confluence in the distant past, the author considered that landform to be an ideal location for a metal detector survey to attempt to locate the material remains of the Villasur Expedition.
Soils

Before conducting the survey near Columbus, the author studied the soils in the search area utilizing the United States Department of Agriculture’s online Web Soil Survey browser interface. This software tool allows the user to view the soil types present in a defined geographical area and download information on their characteristics from the USDA database. The soil study indicated that the land immediately surrounding the 1858 confluence location is principally comprised of a complex of frequently flooded soils with poor drainage that have been periodically eroded and re-deposited by the Platte River during a variety of flow regimes. To the north of the confluence landform, the typical profile contains a layer of sandy loam that rapidly gives way to coarse and gravelly coarse sands. To the south, sandy loams and loamy sands overlie a substrate of fine and coarse sands (United States Department of Agriculture 2011). These results were not unexpected; though the main channel of the Platte typically lies more than half a kilometer to the north of the tip of the landform, the surrounding areas were expected to have flooded during high water, due to the aforementioned variability in flow volume during the spring snowmelt (Eschner et al. 1983; Kircher and Karlinger 1983).

The confluence landform itself presented a picture of moderate promise. The soils comprising its eastern tip and much of the northeast flank are also frequently susceptible to flooding and somewhat poorly drained, with a layer of loam of variable thickness overlying fine sand. To the west and southwest, the stability of the soils was noticeably improved. Much of the central portion of the landform consists of fine sand that is only occasionally flooded, with the northwest and southwest flanks containing occasionally flooded sandy loams (Figure 6-7) (United States Department of Agriculture 2011).
Figure 6-7. Soil map of the 1858 Platte/Loup confluence location from the USDA Web Soil Survey browser. The orange lines delineate the boundaries of soil units; the northeast portion of the confluence landform is frequently flooded, while the remainder is occasionally flooded. The present course of the combined Platte/Loup rivers can be seen to the northeast of the image; the current confluence is located four kilometers to the west (United States Department of Agriculture 2011).

Though it had not been inundated as frequently as the lands to the north and south, the soil analysis made it clear that the confluence landform itself had been modified to at least some extent by fluvial action from the Platte over the preceding centuries. Nevertheless, the shape of the landform itself remained clearly recognizable in satellite imagery, and the presence of agricultural fields and structures on the central and western portions of the landform indicated that inundations may be less disruptive in this area than to the north or south. In all, while the 1858 confluence landform had clearly not remained entirely undisturbed in the intervening years, the geospatial reconstruction of Villasur’s route still indicated it to be a search area with high potential.

Metal Detector Survey near Columbus, Nebraska

Once the desired location of the survey had been decided upon, the author examined plat maps from Butler and Platte counties to determine contemporary ownership of the
property. The 1858 confluence landform is officially located in Township 16 North, Range 1 East of Butler County, Nebraska, though the precise county boundaries are sometimes unclear on different highway maps. The areas with the highest probability to yield Villasur artifacts were defined as those to the east of E Road in Butler County, encompassing the eastern 1.25 kilometers of the confluence landform. This potential search area was ideal for two reasons: it allowed a survey to approach as close as possible to the actual point of confluence (suggested as being the site of the battle by the Segesser II painting), yet still encompassed soils in its southwest portion that are only occasionally flooded. The boundary between soil units is clearly visible in satellite views of the landform’s eastern tip (Figure 6-8). While the northeastern flank of the landform that is comprised of frequently flooded loam and sand appears to have been left in a nearly wild state with only occasional two-track dirt roads and buildings visible, the sandy soil of the southwestern portion of the potential search area has been divided into agricultural or grazing fields. This land use pattern indicated that the search area’s southwestern corner was flooded rarely enough to allow economical agricultural activities to take place there, while the remainder was flooded more often, making such endeavors less viable.

The land comprising the potential search area was the property of two different landowners. The author contacted both in the fall of 2010 to obtain permission for a metal detector survey on their property. Unfortunately, one of the landowners was unenthusiastic about work being conducted on his land, and these areas incorporated the highest-probability occasionally flooded areas in the southwest corner of the potential search area abutting E Road. John Woerth, the other landowner, was enthusiastic about the possibilities of the survey and was agreeable to the conducting of work on his land,
though he would need to be present because the property was accessed by traversing the first landowner’s property. Though Woerth’s land was unfortunately comprised almost entirely of the frequently flooded soils to the north of the confluence landform, it also included a portion of the frequently flooded northeast portion of the landform itself (Figure 6-9), and was well worth a metal detector survey, representing the highest-probability area that was available. The author and John Woerth ultimately decided to postpone the survey until after the fall deer hunting season and winter of 2010-11, and visit the area in the spring of 2011.

Metal detectors have been increasingly recognized since the 1980s as being the ideal tool for conducting archeological surveys at historic battlefield sites. Unlike many other site types that consist of assemblages accumulated over years of occupation or after recurrent discreet visits, a battlefield site is created by a single comparatively brief event that is rarely repeated on the same ground (sites such as Manassas, Virginia and Ypres, Belgium providing exceptions to the general rule) (Saunders 2007; Reeves 2010). Post-depositional processes involve battlefield looting activities immediately following the cessation of fighting (discussed in greater detail in Chapter 7) and contemporary battlefield collecting activities in cases where the location of the engagement is known. These processes deplete the battlefield of equipment considered to be of further use, as well as any material whatsoever seen to be of value, broken or not. This results in an assemblage that generally consists of small items (Rost 2009; Wilbers-Rost 2009), which is further reduced as decomposition processes in the soil over longer periods of time result in the loss of organic artifacts. In the case of historic battlefield sites up until the mid-to-late nineteenth century, therefore, the majority of site assemblages consist of lead
shot, with an overwhelming preponderance of recovered artifacts being composed of metal of a variety of types (Pratt 2009).

Figure 6-8. View of the potential Villasur search area. The top image is from the USDA Web Soil Survey browser (United States Department of Agriculture 2011) and the bottom image is from Google Earth. E road runs north to south along the western edge of both images. Note the visible differences in land use according to soil; the frequently flooded areas in the northeast have been left largely unimproved, while the occasionally flooded southwestern corner has been employed for agricultural activities.
An informal comparative study of archeological survey techniques at Manassas National Battlefield Park in Virginia graphically illustrated the appropriateness of utilizing metal detectors to investigate an historic battlefield site. Metal detector operators sweeping in linear transects and conventional shovel testing techniques at 25-foot intervals were employed in a survey conducted of an area of the battlefield known as Matthew’s Hill. The shovel tests yielded a single battlefield artifact, while nearly 900 artifacts were located by the metal detectors over the same land area (Reeves 2010). These results did not indicate that shovel testing is an ineffective means of performing an archeological survey. Rather, they were an illustration of the necessity of employing a survey methodology appropriate to the situation. The combination of a high proportion of metal artifacts on a battlefield site and the need to recover a comparatively larger percentage of the total assemblage to infer information on troop positions, weapons
employed, and movements throughout the engagement make the use of metal detectors the most logical survey technique (Reeves 2010). Given the limited time and participants available, and the likely composition of the Villasur assemblage, the 2011 survey near Columbus employed metal detectors.

Following the winter of 2010-11, the survey of John Woerth’s land took place on March 19, 2011. A thorough investigation of the accessible land area would not have been nearly as feasible as it ultimately proved without the enthusiastic help originating from several different quarters. A total of fourteen people directly participated in the survey (see Acknowledgments), including volunteers from the Columbus area and participants from the Platte County Historical Society and University of Nebraska. Two Japanese archeologists visiting the University of Nebraska also contributed, and two reporters from the *Columbus Telegram* were on site to document the survey.

The survey employed a total of eight metal detectors. Cedar trees covered much of the search area, growing in clusters of variable density. The crew conducted the initial portion of the survey in an unsystematic fashion to achieve reasonable coverage in this environment, with each detector operator sweeping individually among the denser clusters of trees in order to efficiently cover ground in areas not conducive to linear transects. Beginning in the southern third of the search area, the detector operators steadily worked north until reaching a more open grassy area with scattered trees that made up the central portion of the survey polygon (see Figure 6-9). Linear transects became viable in this clearing, and crew members surveyed two wide corridors, the first to the north and the second back to the south, to cover the majority of the open land. Each corridor consisted of the eight detector operators sweeping linear transects roughly 10-15
meters apart. Upon reaching the northern end of the open area, the second set of transects moved back south to the east of the original corridor (Figure 6-10). Following the completion of coverage of the open area, individual sweeping continued in the remainder of the land to the north of the confluence landform.

The final area to be surveyed was the only portion of John Woerth’s land actually overlapping the 1858 confluence landform, located at the extreme southwestern edge of the search polygon (see Figure 6-9). The crew reached this area by crossing the small intermittent stream dividing the confluence landform from the frequently flooded areas to the north. The strip of land was a heavily wooded rise just to the south of the stream, and was nowhere more than one hundred meters in width. An informal pattern of individual sweeping by four detector operators covered this area, each operator excavating their own targets. Upon the completion of a thorough examination of this area, the survey participants departed John Woerth’s property.
The survey procedure employed throughout the day involved locating a target by metal detector, then either excavating the object immediately or marking its location with a pin flag until it could be returned to at a later time. The metal detectors used during the survey allowed the detection of most small objects to a depth of roughly 50-60 centimeters. A Trimble Global Positioning System (GPS) unit was on hand to mark the locations of significant artifacts.

The vast majority of artifacts encountered by the survey were located in either the central clearing of the search polygon or in the strip of land inside the 1858 confluence landform. In all cases, the artifacts excavated post-dated the Villasur expedition, with none positively dateable to before the twentieth century. In the central clearing, excavated material included wire nails, modern cartridge cases, and miscellaneous metal objects. The largest artifact recovered was a heavily corroded fragmentary iron frying pan or skillet, encountered near the northern end of the western transect corridor. Crew members excavated this artifact from a depth of nearly one meter, and it was likely only registered at such a depth by the metal detector because of its large size relative to the remainder of the artifacts encountered (Figure 6-11).

The recovery of the fragmentary skillet from such a depth is illustrative of the role fluvial action by the Platte River has played in the evolution of the stratigraphic environment in the majority of the search polygon. The artifact’s machine-folded construction indicates that it post-dates the Villasur expedition, yet the repeated flooding of the area since its deposition had already buried it at a depth that would have placed it beyond the range of the metal detectors used in the survey if it had contained a smaller quantity of metal. If Villasur artifacts of iron and lead are indeed present within the 2011
survey area, they can be expected to lie even deeper due to the same fluvial perturbations, and their expected small size makes them even less likely to be detected. Although the frequently flooded nature of the soils in the search area was known before the survey, the excavation of the skillet at such a depth is an excellent indication that if Villasur artifacts are present, they are either buried too deep for detection or have been disrupted and dispersed by fluvial action.

The artifacts recovered from the thin strip of land within the 1858 confluence landform supported the same conclusions. Once again, all of the cultural material excavated was clearly of a twentieth-century origin, and included a heavily-corroded 1934 Nebraska vehicle license plate, miscellaneous metal artifacts, mattress springs, and both unfired rifle cartridges and fired cartridge cases (Figure 6-12). Although all excavated artifacts were retrieved from within the metal detector’s typical 50-60 centimeter depth range, the proximity of the location surveyed to the edge of the confluence landform and the frequently-flooded nature of the local soils is highly suggestive that fluvial action has also modified the stratigraphy of this area.

At the conclusion of the March 2011 survey, it was evident that the frequently flooded soils in the search polygon had left no artifacts predating the twentieth century at a shallow enough depth to be locatable by the available metal detectors. This was not entirely a surprise; as discussed above, John Woerth’s property was close to the 1858 confluence landform, but only a small portion of his land actually overlapped the area considered to have the highest probability to yield battle-related artifacts. Yet the survey was highly desirable and its results welcome, for the property examined represented the only accessible portion of the old Platte/Loup confluence and proved invaluable to
characterize the stratigraphy of local soils classified as “frequently flooded” within the USDA database. While the 2011 metal detector search ultimately yielded no evidence for Villasur’s presence, the data gained allows a more efficient prioritization of locations for future surveys.

Figure 6-11. The fragmentary iron skillet or frying pan as it appeared upon excavation from a depth of nearly one meter. This artifact, clearly post-dating the Villasur expedition, is an excellent indication that if artifacts related to the 1720 battle are located within the search area, they have been too deeply buried by river fluvial action to be within the range of metal detectors. Photo by the author.

Figure 6-12. Modern unfired rifle cartridge excavated on the extreme northeastern flank of the 1858 confluence landform. All artifacts recovered from the area clearly post-dated the 1720 Villasur campaign. Photo by the author.
Potential Future Archeological Investigations

The most obvious location for further work is the remainder of the eastern tip of the 1858 confluence landform, should the requisite permissions be gained in the future. The frequently flooded soils in the northeastern portion of the confluence have likely experienced the same disturbances as those excavated in the 2011 survey, but have the benefit of being located in a higher-probability area for the recovery of Villasur-related artifacts. The location with the highest potential of all is considered to be the cultivated area immediately abutting the east side of E Road (on the lower left in Figure 6-8). These fields roughly correspond with the area of occasionally flooded soils on the former confluence landform, and are accordingly expected to have suffered less fluvial disruption in the years since the confluence shifted to the west. There is likely to have been some degree of agricultural modification of the soils in these locations, but these activities may not have seriously disturbed any potential Villasur artifacts, depending upon how deeply they may have been buried by any fluvial action.

The route of withdrawal of the remainder of Villasur’s force (or, more accurately, the route along which the survivors fled) is unknown. However, if future surveys to the east of E Road prove fruitless, then further investigations to the west of E Road may be justified. The remainder of the old confluence landform has been divided into agricultural fields, and is composed primarily of occasionally flooded soils similar to those in the highest probability areas to the east of E Road. The landform ends approximately 3.5 kilometers to the west of the location of the old confluence, where the Platte, having just merged with the Loup, bisects and submerges its remainder (see Figure 6-6).
Finally, the soils to the west of the current confluence of the Loup and the Platte have some potential for a survey to reveal Villasur-related artifacts, as it is known that the expedition spent August 8, 1720 traversing the land between the rivers (Thomas 1935). These areas also possess the advantage of being located farther from any fluvial disruptions caused by channel evolutions in the Platte or Loup, and often contain soil units of greater stability than those found to the east. Specifically, the lands along US Highway 30 in the ten kilometers west of the point where the road leaves US Highway 80 just to the south of Columbus are largely comprised of rarely flooded loams and sandy loams (United States Department of Agriculture 2011). Avocational collectors have recovered Pawnee artifacts roughly contemporaneous with Villasur on or near the surface near Highway 30 in recent years (Tom Martens, personal communication 2011), indicating that the soils in the area are at the very least more stable than those surveyed in March of 2011.

This chapter summarized the delineation of a high-potential survey area designed to recover material remains of the Villasur Expedition. Historical marching distances and geomorphological data agreed that a past confluence location approximately three kilometers east of the modern meeting place of the Platte and Loup rivers represented an ideal survey area. While the March 2011 survey did not produce any battle-related artifacts, permission issues required that the highest-probability survey areas be avoided during the March activities. As such, there is considerable potential for future survey work.

While the 2011 investigations did not produce any artifacts related to the Villasur Expedition, a consideration of the likely composition of the archeological assemblage
associated with the battle is productive in its own right. There have been numerous anecdotal reports of Villasur artifacts being recovered in Nebraska published during much of the twentieth century, and an analysis of artifacts likely to be present in the assemblage helps to evaluate the probability of these reports being accurate. Most importantly, even in the absence of positive results obtained from a survey, a study of the Villasur engagement is helpful in developing methodology for testing models of a specific type of battlefield: that of the catastrophic defeat.
Chapter 7
The Battlefield Archeology of the Villasur Expedition

The March 2011 survey to the south of Columbus did not yield any artifacts associated with the Villasur Expedition. The combined results of the geospatial analysis of the expedition’s route and the study of the Platte’s channel evolution confirm the viability of the survey location, but fluvial action in the years since the battle has either buried extant artifacts in the search area too deeply for detection or disrupted a portion of the battle’s remains completely, possibly washing them downstream. Anecdotal accounts of recovered Spanish artifacts near Columbus and archeological fieldwork elsewhere in Nebraska, however, allow further investigation into the possibility of surviving Villasur artifacts. The ambiguities in the available hearsay accounts of recovered artifacts make definitive statements difficult, but the documented retrieval of ceramic sherds from the Eagle Ridge site in eastern Nebraska allows for more in-depth interpretation.

This chapter utilizes the above sources and prior work on the Little Bighorn and Teutoburg Forest battlefield sites to characterize the likely composition of the Villasur assemblage, as well as extrapolates further on the wider utility of studying battlefield sites like that of the 1720 engagement. The battle in which the expedition met its end was a catastrophic defeat, the survivors being forced to abandon the planned campaign and make their way back to Santa Fe. The latter section of this chapter argues that the study of the expedition is important not just to battlefield archeology and United States history as a whole, but to the investigation of the archeology of the catastrophic defeat in particular. The Villasur assemblage, should it be definitively located, represents part of a
growing body of data on how the composition of battlefield sites varies with the tactical circumstances in which artifacts were deposited.

**Extant Artifacts: Anecdotal Accounts**

As an addendum to his account of the 1924 Nebraska Historical Society survey to the west of Columbus, Addison E. Sheldon provided an overview of local anecdotal recollections of possible Villasur artifacts found in the area. According to one of these informants, a brass chain that was “distinctively Spanish” was found near Genoa, Nebraska about thirty kilometers west of Columbus in 1922, two years before the survey (Sheldon 1924a:95). A collector recovered a portion of a helmet and a partial stirrup in 1889 near Clarkson, Nebraska, roughly thirty-eight kilometers to the northeast of Columbus. A resident of Monroe, Nebraska only twenty kilometers west of Columbus supposedly retrieved a number of Spanish coins from a post hole around the turn of the twentieth century (Sheldon 1924a).

Brass plates described by one of Sheldon’s informants as being similar to those used in armor were found near both Genoa and Monroe, three near Genoa at an unspecified date and “many” at a Native American site near Monroe in about 1914 (Sheldon 1924a:95). The Pawnee site near Monroe (25PT13) appears to be the closest to the stated location (Grange 1968), so if this account is correct, then the plates may have been retrieved from this site. The person who found the plates was presumably an avocational collector, and in either event the records of the Nebraska Historical Society do not describe any such artifacts being encountered at the Monroe site.
Frederic W. Pearsall, a Minnesota resident interested in the investigations of the Nebraska Historical Society into the end of the Villasur Expedition, wrote Sheldon in May of 1924 with further anecdotal accounts of artifacts being discovered near Genoa. An unnamed individual had informed Pearsall that as a schoolboy in Genoa, he and his friends had found “old guns and armor and pouches of bullets” near town and traded the artifacts for tobacco (Pearsall 1924:96). Pearsall’s wife, herself from Genoa, apparently confirmed the story, relating how she had heard of knives, swords, and shields being excavated and had retrieved bullets from the Loup River while swimming with friends (Pearsall 1924).

Finally, Civil War veteran George W. Prather provided Sheldon with an account of his unearthing of two iron stirrups on his homestead near Riverton in southern Nebraska, in August or September of 1874. Prather allowed the stirrups to be taken to Lincoln for analysis, and said that one was later assessed at the Smithsonian Institution in Washington, D.C. as being “of medieval Spanish make” (Sheldon 1924b:99). After reading of the journey of Coronado into the Great Plains, Prather stated his belief that his stirrups were likely items of equipment lost by the mid-sixteenth century Spanish expedition (Sheldon 1924b).

Following the March 2011 Columbus survey, an opportunity arose to give a presentation on the Villasur search efforts to date before a gathering of members of the Platte County Historical Society, facilitated by director of the Society Cheri Schrader who had experienced an unexpected cancellation of a previously-arranged program. The opportunity to discuss the survey with members of the Historical Society was welcomed. Not only did it allow the addressing of any questions that those interested in the history of
Platte County might have, but it represented an opportunity to possibly obtain further anecdotal accounts of Spanish artifacts encountered near Columbus that did not appear in the available sources.

The presentation took place on April 3, 2011 at the Historical Society in Columbus. The fifty to sixty attendees were interested in the investigation and asked a number of questions relating to the history of the expedition and the delineation of the March 2011 survey area. As hoped, one man provided an additional account of Spanish artifacts near Columbus. He recalled that between 1959 and 1961 a fragment of a Spanish helmet was found at the mouth of Loseke Creek where it merges with Shell Creek, approximately thirteen kilometers northeast of Columbus, and that the discovery had been reported in the local *Columbus Telegram* newspaper.

Jerry Kneifel, who had also taken part in the March survey and was present at the April presentation, spent a great deal of his own time examining back issues in the archives of the *Telegram* to attempt to locate this account of the helmet discovery. Unfortunately, his study of the *Telegram* from 1959 to mid-1962 revealed no mention of such an artifact being recovered (Jerry Kneifel, personal communication 2011).

The different accounts of colonial Spanish artifacts being recovered in Nebraska are intriguing. Indeed, items recovered from the battlefield after the rout of Villasur’s command can be logically expected to have eventually found their way into the archeological record via another route, as discussed later in this chapter. Yet virtually all of the anecdotal recollections suffer from a lack of documentation, and most of the artifacts in these accounts are unlikely to have found a place in the kit of the average soldier on Villasur’s campaign.
The overview of the 1720 expedition’s arms and armor provided in Chapter 3 illustrates how metal armor had given way by the early eighteenth century to multiple-layered leather armor in the form of the *cuera* leather coat and the indigenous leather armor traditions of the Pueblo and Apache Native Americans. Helmets had also been replaced by a variety of leather headgear. The Spanish in North America had, nevertheless, widely used plate armor and mail garments for protection in battle in the years prior to Villasur’s march north. Full suits of plate armor were in their heyday during Spain’s initial colonization efforts in mainland Mexico and Florida in the early sixteenth century, though they soon began to fall out of common use in favor of three-quarter and half-length suits in the later decades of the century (Peterson 1956; Wise 1980). Less elaborate armor in the form of brigandines and simple breastplates was common among Spanish soldiers during the sixteenth and seventeenth centuries, the former comprising a collection of many small metal plates affixed to a canvas or cloth backing by rivets or stitching (Peterson 1956). By 1720, however, the use of metal armor in all forms had been almost completely abandoned; while mounted troops of the British elsewhere on the continent sometimes continued to wear helmets for protection, there is no evidence that the soldiers of the New Mexican frontier retained any form of metal armor at the time of the Villasur Expedition (Peterson 1956; Wise 1980).

This information casts immediate doubt on the identity of some of the artifacts ostensibly found in the Columbus area. Since the soldiers of Villasur’s force were not protected by metal armor, the helmet finds at the mouth of Loseke Creek and near Clarkson (if they do represent actual discoveries) are unlikely to be associated with the 1720 campaign. No dimensions are provided for the brass plates described as being found
near Genoa and Monroe in the early twentieth century, but it is at least possible that these pieces are similar to those that combine to form the matrix of protection of the brigandine (Peterson 1956). However, these artifacts would once again date too early to have been associated with Villasur.

The recollections of pouches of bullets, guns, knives, swords, and shields being excavated must also be labeled as suspect. The leather of an *adarga* shield would likely not have survived intact unless preserved in an anaerobic environment, as would the “pouch” surrounding a number of bullets. The cartridge boxes in use by Spanish soldiers in the early eighteenth century consisted of a leather container with an outer flap surrounding a wooden block in which holes had been drilled to admit cartridges of ball and powder (Brinckerhoff and Chamberlain 1972), and would also not have fared well unless buried in a similar oxygen-free context. If the “bullets” noted in the anecdotal accounts were truly conical form bullets, then they would also have post-dated the 1720 campaign, as both attacking and defending muskets in the Villasur engagement would have fired spherical lead balls (Brinckerhoff and Chamberlain 1972; Hanson and Harmon 2011). Nothing additional can be said about the brass chain reported to have been recovered near Genoa and the Spanish coins near Monroe without further information.

The stirrups found by George W. Prather near Riverton in 1874 hold the most potential for analysis. Not only do these artifacts have the most information associated with their recovery of all the anecdotal accounts, but their depiction in a line drawing in Sheldon’s article about the discovery does not rule out their being contemporaneous with Villasur. The Riverton stirrups are triangular in profile with a wide tread for the foot, and in contrast to the cruciform stirrups described in Chapter 5, are examples of those used in
the *a la jineta* style of horsemanship (Simmons and Turley 2007). This style was an example of the hybrid Moorish/Spanish heritage reflected in Spanish military equipment of the period, a visible reminder of the military history of the Iberian Peninsula. While the Chapter 5 cruciform stirrup visible in the Segesser hide painting was a holdover from the heavily-armored Spanish horsemanship tradition of the Middle Ages (known as *a la brida*), the lighter triangular-profile stirrup was a Moorish design associated with light horseman (Simmons and Turley 2007). Both styles were distinctively Spanish, and remained in use in North America from the sixteenth through the eighteenth centuries; a new version of the Royal Presidial Regulations finally ordered the cessation of use of the large iron cruciform stirrup on the New Mexican frontier in 1772 (Simmons and Turley 2007).

![Figure 7-1](image1.jpg)

*Figure 7-1. On the left is a close view of the stirrups worn by two Spanish Native American allies in the Segesser II reproduction on display at the Nebraska History Museum (photo by the author). On the right is a line drawing of one of the Spanish stirrups found near Riverton, Nebraska in 1874 (Sheldon 1924b:98). The triangular *a la jineta* stirrup style is found only among Native American allies in the Segesser II hides.*

Interestingly, the triangular *a la jineta* stirrup also appears to be depicted in the Segesser II hides, though solely on the horses of the Native American allies of the Spanish (Figure 7-1). Whether the lighter equipment was preferentially adopted among Native Americans or the Spanish directly or indirectly regulated the use of the heavier
cruciform stirrup is unknown, but the sole example of the latter in the Segesser II painting is found on a Spanish soldier, while all depictions of the triangular stirrup are found among Spanish allies.

It is impossible to state with certainty whether the Riverton stirrups are associated with the Villasur expedition. While similar equipment was known to be in use in 1720, and triangular stirrups are depicted in the Segesser II painting, the long period of use of the *a la jineta* equipment means that they would have been employed by a variety of Spanish military forces over centuries. However, it is most probable that the Riverton stirrups comprised part of the equipment of either the Villasur Expedition or that of Coronado, the latter having reached the lands between the Kansas and Arkansas rivers in central Kansas in 1541 (Kessell 2002). Both of these campaigns were by far the only Spanish military ventures to have marched such a distance into the Great Plains beyond the New Mexican frontier. The stirrups may not have been moved very far from their original place of deposition, as both were found together by Prather in 1874 (Sheldon 1924b), and as such are almost certainly associated with one of the two expeditions.

The Riverton stirrups were found roughly 180 kilometers northwest of Coronado’s farthest point north, and approximately 190 kilometers southwest of the likely site of the Villasur Expedition’s destruction. The location being nearly equidistant from both points, this information provides little support to either identity. However, while there is no indication that Coronado ever traveled a significant distance to the north of the Kansas River (Kessell 2002), Villasur passed through northern Kansas to enter Nebraska at some point, most likely via established Native American trails. If the ideal Villasur route discussed in Chapter 4 is followed, then the route of the 1720 expedition along the south-
north Native American trail from Kansas into Nebraska passes about thirty kilometers to the east of the location at which the stirrups were found near Riverton. As the precise route followed by Villasur’s force remains unknown, a definitive correlation between the Riverton stirrups and the 1720 campaign cannot be made. Yet between the two logical possibilities of the Coronado or the Villasur expeditions, the Villasur relationship is the most likely.

Overall, the available anecdotal accounts of Spanish military artifacts found near Columbus provide little substantive information that can be used to establish a relationship between these artifacts and the 1720 Villasur Expedition. In most cases, the veracity of the accounts must be questioned due to the unlikelihood of preservation of some artifacts and the anachronistic nature of others when compared with the known equipment of the only Spanish military force to have reached the area. The pair of Spanish stirrups recovered near Riverton in 1874 represents a possible connection, but this cannot be stated with certainty. Formal archeological excavations in eastern Nebraska, however, have yielded artifacts with a more robust connection.

**Extant Artifacts: Spanish Olive Jar Fragments**

The Eagle Ridge site (25SY116) is most likely an Oto (but possibly an Ioway) Native American occupation site in northeastern Sarpy County in eastern Nebraska, to the north of the mouth of the Platte where it empties into the Missouri River (Bozell and Carlson 2010a). Though there is some evidence of habitation as early as the Late Woodland (circa AD 1410) at Eagle Ridge, the vast majority of the activity at the site took place in the early eighteenth century, most likely around 1730. A European-American farmstead also
occupied the area around the northern edge of the site after abandonment, remaining in use from the late nineteenth through the early twentieth centuries. Personnel from the Nebraska State Historical Society Archeology Division excavated the site in 1998, as a part of mitigation activities conducted before the construction of a golf course and housing development. Over the course of the project, the crew excavated a total of sixty-eight pit features (Bozell and Carlson 2010a, 2010b).

The assemblage recovered from the Eagle Ridge site indicated that the inhabitants of the area had been in extensive contact with surrounding populations, engaging in trade activities with both the Pawnee and European colonists (Bozell and Carlson 2010a, 2010b). Amongst the artifacts excavated from the site that were ultimately derived from a Euro-American source were five coarse earthenware body sherds. These were recovered from three separate pit features and the surface (Carlson 2010); a sixth sherd from an additional pit feature displayed some morphological similarity to the others, but is not discussed here as its origin is more ambiguous.

These five sherds were distinct from the remainder of the ceramic assemblage recovered from the Eagle Ridge site in a number of ways. Perhaps the most immediately noticeable difference was their unusual thickness, varying from 11.8 to 14.3 millimeters (Carlson 2010:132). Both the interior and exterior surfaces were reddish yellow in color, though the cores of the sherds were dark greenish gray. The defining feature of the sherds as a group was their distinct heterogeneity in structure; virtually the entire thickness range occurred at some point on each individual sherd, and the paste was notably variable, ranging from moderate to coarse. While the exterior surfaces were generally polished and smooth, the use of unsorted sand as a tempering material resulted in an uneven paste.
consistency, with some sand inclusions measuring greater than 50% of the thickness of the sherd of which they were a part. The interior of each sherd displayed a series of parallel ridges about 10 millimeters apart, indicating that the original vessel or vessels had been formed on a potter’s wheel, the ridges being the result of the forming processes (Figure 7-2) (Carlson 2010).

In an effort to identify the origin of these unusual sherds, the Historical Society consulted a specialist in French ceramics with Parks Canada, in the assumption that since
the majority of the Euro-American artifacts recovered from Eagle Ridge were of French origin, the sherds may have had a similar manufacturing heritage. The Canadian specialist was able to definitively rule out a French design for the sherds, and posited that they may instead represent an American ceramic type of unknown provenience. A further consultation with faculty at the University of South Alabama was also unable to provide a suggestion of origin (Carlson 2010).

Finally, William Pitman of Colonial Williamsburg, Virginia was able to identify the Eagle Ridge sherds as being fragments of Spanish olive jars (Carlson 2010). These olive jars are a type of wheel-thrown coarse earthenware vessel that was very common in Spanish colonial transport operations from the end of the fifteenth through the end of the eighteenth centuries. Though sometimes manufactured in Spanish colonies, the majority of these vessels were made in Spain and found their way to North America as cargo containers on board Spanish ships (Deagan 1987; Goggin 1960; Marken 1994).

Olive jars would typically contain liquids or contents with a liquid component, including olive oil, olives in oil or brine, wine, and pitch (Goggin 1960; James 1988; Marken 1994). Their overall shape varied both within a given time period and over their centuries of usage, but an olive jar was generally a slightly to moderately elongated vessel with curved sides, a rounded base, and a narrow top opening with a thick lip and little to no neck (see Figure 7-3). The mouth was typically closed with a cork stopper, sometimes with a leather gasket to provide a tighter seal (Goggin 1960; James 1988; Marken 1994). Early examples often had a loop handle on either side of the mouth, but this design feature had mostly disappeared by the end of the sixteenth century (Goggin
The rounded base of the jars was an indication of their likely descent from Roman and Greek amphorae (Marken 1994).

Sherds from olive jars are ubiquitous at Spanish colonial sites throughout the Caribbean and much of mainland North America. Their abundance is an indication of both the everyday use of the jars in maritime transport and their employment as utility vessels in a variety of applications after their arrival in the Spanish North American colonies, including being used as water containers (Goggin 1960). Replacing the wooden barrels and crates often used as shipping containers in the North Atlantic, olive jars are very often found aboard Spanish colonial shipwrecks (Deagan 1987; Marken 1994).

Goggin (1960) posited that the average jar may have been thrown in two pieces that were later fitted together, but Marken (1994) considers this unlikely due to the absence of visible joints. Furthermore, he notes that the uneven walls of a hastily-thrown olive jar made it unlikely that two separately-formed halves would have fit together perfectly. The presence of defects like the large sand inclusions visible in the Eagle Ridge examples underlines the mass-produced, strictly functional nature of the olive jar, and may be a byproduct of a rapid throwing process. Extended shaping on the potter’s wheel to minimize any aberrations of form may have made the clay too pliable to support its own weight. Marken convincingly notes that as the olive jars had only to satisfy the single requirement of adequately holding their contents, the presence of physical irregularities was irrelevant (Marken 1994).

Goggin (1960), who performed much of the early typological work on the Spanish olive jar, divided vessel design into three general periods: Early, Middle, and Late. As mentioned above, Early period jars with loop handles had largely disappeared by the end
of the sixteenth century. Late style vessels dating to after AD 1800 often had white tin enamel applied to the interiors and a generally chalky paste. Highly variable stamped marks on the rim or upper bodies of vessels from the Early and Middle periods were very common, and may have indicated the contents of a vessel, a particular manufacturer, or ports of origin or destination (Goggin 1960; Marken 1994).

William Pitman, upon examining the Eagle Ridge sherds, classified them as likely belonging to olive jars from Goggin’s Middle period, which roughly corresponds to a manufacturing date of AD 1580-1800 (Figure 7-3) (Carlson 2010; Goggin 1960). Middle period vessels are the olive jars most commonly found on Spanish colonial sites, due to the type’s lengthy usage. Corresponding closely with the morphology of the Eagle Ridge sherds, Goggin (1960) described Middle period vessels as possessing a paste of moderate coarseness tempered with sand and generally reddish brown in color, being highly variable in thickness, and with a smooth exterior and an interior that often displayed throwing marks.

Figure 7-3. Spanish olive jar vessel forms of Goggin’s Middle period, circa AD 1580-1800 (Goggin 1960:28). The olive jar sherds from the Eagle Ridge site may have originally comprised part of a vessel or vessels of these styles.
However, Goggin also noted that a white slip was typically applied to the exterior of a Middle period vessel, and that glazing of the exterior and interior was sometimes practiced (Goggin 1960). The Eagle Ridge sherds possess neither of these features, and so were examined further by David V. Hill of the University of Texas for comparison with olive jar sherds found in the American Southwest. Hill’s study confirmed through constituent mineral analysis (petrography) that the paste of the Eagle Ridge sherds was consistent with other Spanish olive jars. He further noted that olive jar sherds without exterior white slips and interior glazes had been found in Arizona and Texas, though as a whole olive jars were less common in the American Southwest than in the Southeast and Caribbean (most likely due to the increased distance from coastal ports). Hill’s overall assessment, then, was that while the Eagle Ridge sherds may have come from Spanish olive jars, they likely represented an unusual variety from the late seventeenth or eighteenth centuries (Hill 2010).

The identification of the five Eagle Ridge sherds as Spanish olive jar fragments raised the immediate question of their ultimate origin, with the Villasur Expedition being the most obvious candidate. As mentioned above, the Coronado and Villasur campaigns were the only Spanish military endeavors to approach anywhere close to the Eagle Ridge site. While the geographic position of the Riverton stirrups allowed some ambiguity in the origin of those artifacts, the Eagle Ridge olive jar fragments were recovered from a site much closer to the probable location of the Villasur engagement, Eagle Ridge being roughly 110 kilometers to the east-southeast of the proposed 1720 confluence location. Furthermore, the Eagle Ridge fragments likely date to Goggin’s Middle period (Carlson 2010), while any olive jars accompanying the Coronado campaign must necessarily have
dated to Goggin’s Early period (Goggin 1960). It is most likely, then, that the five Eagle Ridge sherds once comprised part of a vessel or vessels that were used to transport water or other liquid for Villasur’s expedition to the north of Santa Fe in 1720, a relationship that was first proposed by Gayle Carlson (2010) in his overview of the Eagle Ridge sherds in Central Plains Archeology.

If the five Eagle Ridge olive jar fragments originated with the 1720 campaign and were eventually deposited 110 kilometers from the site of the battle, it was possible that further sherds had entered the archeological record closer to this presumed point of origin. Since olive jar sherds are easily noticeable due to their thickness, signatures of being wheel-formed and coarse temper with frequent large inclusions, they represent a clear indicator of a Spanish presence in a region in which the Villasur campaign was the only likely source. In an effort to determine whether any further olive jar sherds had been recovered in prior excavations by the Nebraska Historical Society without being remarked upon, the author examined the Society’s excavation records for historic Pawnee sites within an arbitrary fifty kilometer radius of the proposed location of the 1720 Platte-Loup confluence. This radius was chosen because it provided a sample that encompassed the most likely locations of Villasur artifacts (those closest to the engagement site) and represented a manageable group of sites to test the validity of the search effort (a total of eleven sites).

The eleven sites examined were Linwood (25BU1), Bellwood (25BU2), Hordville (25HM1), Burial Hill 1 (25HM2), Genoa (25NC6), Cunningham (25NC10), Vogel (25NC11), Plum Creek (25NC14), Clarks (25PK1), Nelson (25PK2), and Johnson (25PK3). The Historical Society’s records for the majority of the sites yielded no
information that suggested the possible excavation of additional olive jar fragments. However, the records from two sites (Linwood and Bellwood) contained a point of ambiguity that required clarification. The Society’s files indicated that a collection of sherds from both sites that had been excavated in the 1930s had been sent to the Smithsonian Institution in Washington D.C. in August of 1942 for study. There was no physical description of the sherds available at the Historical Society, and the artifacts were not present in the Smithsonian’s online artifact database. The author contacted James Krakker of the Institution, who was able to confirm that the Linwood and Bellwood artifacts sent to Washington D.C. in 1942 were all aboriginal sherds (James Krakker, personal communication 2011).

In addition, Gayle Carlson’s report of highway salvage excavations conducted at the Linwood site (25BU1) from 1965 to 1968 contained a mention of one unclassifiable body sherd described as being “quite thick and poorly fired” in an area of the site that was occupied in the mid-nineteenth century (Carlson 1973:67). Trisha Nelson of the Historical Society and the author searched through the ceramic collections from 25BU1 in an attempt to retrieve this sherd for closer examination, but were unable to locate it. Gayle Carlson was later able to confirm that the sherd was much softer than an olive jar sherd, and was not likely to be of European origin (Gayle Carlson, personal communication 2011).

The examination of excavation records from Pawnee historic sites within a fifty kilometers radius of the 1720 Platte/Loup confluence revealed no evidence of additional artifacts of definitively Spanish origin having been recovered. Thus, the five Eagle Ridge olive jar fragments discussed above remain the only artifacts recovered in Nebraska that
are highly likely to be associated with the Villasur Expedition, though it is possible that the Riverton stirrups are also related. A consideration of the battlefield archeology of the expedition need not be abandoned here, however. Though the site of the 1720 engagement remains undiscovered, much important archeological work has been conducted on the sites of other battles with similar outcomes to the Villasur campaign. The results of these investigations allow a great deal to be said about the Villasur assemblage, and the future potential of these avenues of study is a further illustration of the importance of reexamining the events of 1720.

**The Archeology of the Catastrophic Defeat**

The term “decisive victory” is often encountered in historical accounts of past military engagements and campaigns, with definitions that vary somewhat in their specifics but communicate the same general concept of a military force’s success in battle. Colin S. Gray of the University of Reading, United Kingdom defines decisive victory within the context of the progressively smaller strategic, operational, and tactical spheres of conflict. At a strategic level, a decisive victory would be “one that decides who wins the war militarily” (Gray 2002:11). The victory of the Allies against the Axis nations of World War II is one obvious example. Within the operational level of a single campaign, Gray defines a decisive victory as one that “decides the outcome to a campaign, though not necessarily to the war as a whole” (Gray 2002:11). Continuing with the Second World War analogy, the early German victories in Poland or France may well be considered decisive operational victories. Finally, a tactically decisive victory is achieved when one military force unequivocally defeats another in a single battle, which may or
may not have a wider impact on the operational and strategic spheres of a conflict (Gray 2002). Gray provides Hannibal’s victory at Cannae in 216 BC as an example of a tactical victory with few wider implications, but this need not always be the case. Napoleon’s defeat of the combined Austrian and Russian armies at the 1805 Battle of Austerlitz was a decisive tactical, operational, and strategic victory, helping to bring about the end of the War of the Third Coalition (Castle 2002). In the negative sense, decisive defeats are those that result in the loss of the war, campaign, or battle for a given combatant.

A decisive battle does not necessarily imply the complete destruction of the defeated military force; though Austerlitz was decisive in every sense of the word, the Russian and Austrian armies retreated from the field and reformed the next day. The armies were still intact as coherent fighting forces, but the scale of their defeat resulted in Francis I of Austria negotiating an armistice with Napoleon two days after the battle (Castle 2002). Some weapons and materiel had been lost on the battlefield, including around thirty artillery pieces that had fallen through the ice of frozen lakes during the retreat, but the majority of the Austrian and Russian forces had been able to withdraw in an organized fashion with their equipment due to Napoleon’s pursuit being launched in the wrong direction (Castle 2002).

Therefore, another category of tactical defeat logically presents itself, apart from a stalemated, indecisive or decisive action. This category is the catastrophic defeat, which is here defined as a military loss in which the defeated command is no longer capable of operating as a coordinated military force after the battle. Such a definition would naturally make all catastrophic defeats decisive, but not all decisive defeats catastrophic, as is illustrated in the above Austerlitz example. While a battle or campaign would
remain irrevocably lost after a decisive defeat, the defeated military force would remain capable of further resistance or subsequent engagements; after a catastrophic defeat, the survivors (if any) of the defeated force would individually disperse, being no longer under coherent hierarchical control. The destruction of the Villasur Expedition is clearly an example of this definition of a catastrophic defeat. The majority of the survivors were from among those who retrieved the horse and mule herd, with the testimony of Yldefonso Rael de Aguilar suggesting only three survivors were rescued from the surrounded group in the main camp (Thomas 1935). Not only did the battle end the Spanish campaign into the Great Plains, but the death of nearly half of the entire force ruled out any further coordinated military activities (Thomas 1935).

The concept of the catastrophic defeat holds significant implications for the archeological investigation of battlefield sites. At some juncture during a battle ending in a catastrophic defeat, the losing military force must reach a point at which effective control can no longer be implemented by the force’s commanders. The hierarchical components of the force then disintegrate, as a whole or in sequence, this process ending in a general rout with the soldiers of the defeated command fleeing as individuals. Such a panic response of routed soldiers in a combat situation has been archeologically explored at Towton in Yorkshire, England, the site of a 1461 decisive Yorkist victory during the English Wars of the Roses. In this case, a portion of the opposing Lancastrian army fled from pursuing Yorkists down Towton Dale to the north of the battlefield, in an attempt to cross the nearby River Cock to safety (Boardman 2007; Gravett 2003). The 1996 excavation of human skeletal remains from a mass grave containing 37 or 38 Towton casualties provided evidence of a large number of wounds to the back of the head
resulting in death, possibly as a result of fleeing individuals discarding their protective sallets (helmets) during the rout in order to reduce weight and increase their running speed (Gravett 2003; Richardson 2007). These soldiers were then ridden down and killed by the pursuing Yorkist cavalry (Boardman 2007; Gravett 2003). The discarding or abandonment of weapons and equipment can be expected to be characteristic of sites of a catastrophic defeat. Indeed, the disintegration of an entire military unit in battle would undoubtedly result in large quantities of weapons and accoutrements being left in the field, due to both the panic response of individuals as seen at Towton and the inability of larger pieces like artillery to be moved without coordinated action.

Evidence of both the complete panic response during a catastrophic military defeat and the attendant discarding of equipment is sometimes visible in the archeological record. Yet the context indicating these processes has often been modified since deposition by post-battle activities. These may include relatively recent avocational collecting activities, but the looting of equipment left on the battlefield in the immediate period following the engagement is also a major influence on the final disposition of the assemblage at a given site. Post-battle looting processes can be expected to play an especially significant role at the site of a catastrophic defeat, as the victors are left in complete control of the battlefield and (as discussed above) an unusually large amount of materiel may remain for the taking.

The previous archeological examination of sites of catastrophic military defeats has provided evidence of these phenomena, and helps to characterize the likely state of the Villasur site. To achieve this goal, two case studies are examined below. The first discusses excavations conducted at the 1876 Little Bighorn battlefield in eastern Montana.
in the 1980s that uncovered archeological evidence of the final actions of George Armstrong Custer’s 7th Cavalry soldiers during the fighting on Custer Hill. Following this examination of troop behavior in the context of a catastrophic defeat, the second case study details finds at the site of the AD 9 Roman defeat at the Battle of the Teutoburg Forest in northwest Germany. The discoveries at this site provide evidence of battlefield looting behavior following the conclusion of the engagement. Together, these two studies allow a greater understanding of the state of the Villasur archeological assemblage, and underline the importance of further studies of this and other battlefield sites.

The Battle of the Little Bighorn, AD 1876

The Battle of the Little Bighorn was fought near the Little Bighorn River in eastern Montana on June 25-26, 1876 between a group of Sioux and Cheyenne Native Americans under the spiritual leadership of Sitting Bull and the United States 7th Cavalry Regiment under Lieutenant Colonel George Armstrong Custer. This engagement, in addition to being a well-known American battle in its own right, was the climactic battle of the Indian wars between Native Americans and the United States Army in the nineteenth century. At its conclusion, 262 United States cavalrmen and an unknown number of Native Americans lay dead, the highest loss of life of any engagement during that conflict (Panzeri 1995).

After a grass fire in August of 1983 exposed a ground surface that had previously been covered in dense vegetation, National Park Service personnel conducted a systematic metal detector survey on the battlefield in 1984 and 1985. Based around a grid system of 100-meter squares, the metal detector survey recovered and recorded the
precise locations of thousands of battle-related artifacts, including horse tackle, firearm components, buttons, and thousands of bullets and cartridge cases (Scott and Fox 1987; Scott et al. 1989). The crew also excavated a series of twenty-six two-meter-square and one-by-two meter block excavation units in association with selected marble markers on the battlefield over the two seasons. The markers had been in place since 1890 and each ostensibly indicated the location where one of Custer’s soldiers had fallen during the battle, though a total of 252 markers are present on the field for only 210 7th Cavalry casualties from Custer’s battalion (Scott and Fox 1987; Scott et al. 1989, 1998). Twenty-one of the units yielded human remains, these having been mistakenly left behind at the location of each soldier’s death by a burial detail in 1881 that disinterred the remains of the casualties and reburied them in a mass grave at the summit of Custer Hill (Scott et al. 1989, 1998).

Perhaps the finds most significant for the later development of battlefield archeology were the bullets and cartridge cases. The microscopic firing pin signature imparted to the base of a brass cartridge case, the extractor marks on a cartridge case’s exterior, and the rifling marks impressed into a bullet upon firing are unique for each individual weapon. The study of these features allowed the tracking of the movements of particular weapons around the Little Bighorn battlefield by plotting their recovered projectiles and cartridge cases, with the former indicating a weapon’s target area and the latter its firing position (though it is possible that some cartridge cases had been carried for a period in the weapon before being discharged) (Fox and Scott 1991; Scott et al. 1989). The microscopic examination of archeologically-recovered cartridge cases and bullets to determine the number of weapons and course of events on a battlefield has since been
employed on a wide variety of military sites. In this case, the analysis allowed the 
reconstruction of the progressive disintegration of Custer’s command, as well as 
providing evidence for panic among soldiers and the loss of tactical coherence as the 
engagement approached its end (Fox 1993).

Fox (1993) discusses the ideas of tactical stability and disintegration. Men in battle, 
he argues, can be expected to behave in a predictable fashion dependent upon quality of 
leadership, perceived superiority, strength of training, and other factors. As long as 
leadership and other influences remain strong enough in an engagement, the soldiers 
maintain discipline and repetitively go through the motions of fighting instilled in their 
training. There is always some degree of disorganization in a battle, such as soldiers 
unable to bring themselves to fire and the confusion which appears while under enemy 
fire. This is unavoidable, however, and it is the successful management of this 
disorganization which allows a military force to remain a coherent fighting unit (Fox 
1993).

Fox also explores the phenomenon of bunching. In a stressful battlefield situation, 
soldiers unconsciously begin to crowd closer together, a situation which would have 
predictable effects on loose formations such as the skirmish lines employed by the 7th 
Cavalry. This development is the prelude to disintegration, and leadership must be 
maintained to prevent it from spreading (Fox 1993).

Disintegration can take many forms, but Fox (1993) argues that the type known as 
combat shock is what overtook Custer and his command on June 25, 1876. In a situation 
such as this, when disintegration finally occurs under enemy attack or the breaking of 
morale, panic-stricken soldiers break and flee as individuals, in extreme cases not even
firing on their pursuers as they attempt to reach the nearest area that they perceive as safe. Such concepts as bunching, disintegration, and combat shock were combined with a study of the distribution of recovered artifacts at the Battle of the Little Bighorn to achieve an unprecedented degree of understanding about the engagement (Fox 1993).

These phenomena are intimately associated with what Fox and Scott (1991) refer to as the Battlefield Pattern. A gross battlefield pattern is the generalized knowledge of combatant positions based upon recovered archeological data; for example, the recovery of bullets and cartridge cases on Custer and Calhoun Hills clearly indicated that these were fighting positions during the battle. Such a general perspective does not provide information on the course of battle events; it simply confirms that fighting took place. It is the aforementioned individual analysis of firearms that allows an understanding of dynamic battlefield patterning (Fox and Scott 1991). As the rough starting location of units during the Battle of the Little Bighorn is known, a reconstruction of events by following the movements of individual weapons becomes possible.

More significantly for an understanding of the Villasur battle, the spatial patterning of artifacts is also an indication of whether the military units on the field were acting as a coherent whole (Fox and Scott 1991). The influence of military training results in the suppression of individuality on the battlefield, until discipline or command breaks down under stress in combat. At that point, individual patterns take the place of unit patterns, the disintegration becoming visible in changes of the gross patterning of recovered artifacts (Fox and Scott 1991; Fox 1993). A brief overview of the archeological evidence for panic and collapse among the 7th Cavalry soldiers at the Little Bighorn is useful before later discussing the same concepts in the context of the Villasur Expedition.
Fox (1993) divides the archeological reconstruction of the battle into five “episodes”: Calhoun, Keogh, Cemetery Ridge, Custer (or Last Stand) Hill, and the South Skirmish Line (Figure 7-4). In each area, distributions of Native American and government cartridge cases and bullets indicate differing degrees of tactical stability and positioning as the battle unfolded.

Soldiers of the 7th Cavalry were armed with the Model 1873 .45-caliber single-shot Springfield carbine and the six-shot .45-caliber Colt pistol (Fox and Scott 1991; Fox 1993; Scott et al. 1989). While some soldiers had purchased their own personal firearms in addition to the issue weapons (Scott et al. 1989), the side on which these firearms were used was impossible to determine archeologically, and since the observed number of
different weapons indicates that the Springfields and Colts were used primarily by cavalrmen, it is bullets from these weapons that were largely used to reconstruct the battle. Native Americans in the engagement used over twenty different weapon types (Fox 1993).

Several interesting points can be made about Fox’s Calhoun episode. The survey recovered many expended Native American cartridge cases from below the western crest of Greasy Grass Ridge, perhaps indicating that Native Americans were firing down on cavalrymen from the ridge, using the crest as cover (Fox 1993:96-97). Interestingly, on Calhoun Ridge (located to the west of Calhoun Hill and not labeled in Figure 7-4), the survey recovered Native American bullets near the location of several marble markers on the field. Also, there was a notable lack of government cartridge cases in this area (Fox 1993:99-101), indicating that cavalrymen were not firing despite being fired upon, and that combat shock may have been present on this portion of the field prior to the main disintegration on Calhoun and Custer Hills. The marble markers indicate soldiers were killed here, possibly by Native Americans firing from behind the ridge crest of Greasy Grass Ridge. The lack of government cartridge cases suggests that soldiers may have been proceeding rapidly toward Calhoun Hill, where there was likely still a degree of stability at this stage of the battle (Fox 1993).

On Calhoun Hill itself, recovered Native American bullets and linearly-spaced government cartridge cases suggest that a cavalry position was under attack, and then later disintegrated to the north. The government cartridge cases were evenly spaced in two different lines, suggesting that skirmish lines were formed on two separate occasions (Fox and Scott 1991:100; Fox 1993:106). One line was positioned to face Greasy Grass
Ridge, indicating a response to an attack coming from that direction. The other was positioned roughly east to west, implying the formation of a defensive line facing south (Fox 1993:104-105). The disintegration of this position is supported by the lack of government cartridge cases moving off to the north, giving no evidence of an orderly retreat toward the Keogh area (Fox 1993:109-111). This evidence, coupled with Native American eyewitness accounts, shows the cavalrmen as fighting a concerted defensive action against the Native American warriors on Greasy Grass Ridge to the west, then against a group from the south as warriors begin to infiltrate from multiple directions. Bunching is evident in close concentrations of cartridge cases, and the lack of cases drifting off to the north suggests the collapse of the position on Calhoun Hill and the flight of the surviving soldiers (Fox 1993).

The Keogh episode, located slightly to the east of the saddle between Calhoun and Custer Hills, was very notable for the presence of Native American bullets and the virtual absence of government cartridge cases, especially in light of the fact that more than forty marble markers are closely bunched in this region (Fox 1993:111-113). Such an overwhelming disparity between cartridge cases and markers suggest that many panicked cavalrmen passed in full flight through this area without firing their weapons. Coupled with the evidence from Calhoun Hill, the Keogh episode implies that after the collapse of the Calhoun Hill position, the soldiers began fleeing to the north toward Custer Hill, where a semblance of concerted resistance presumably remained at this point. The marble markers testify that many of them did not make it that far. Such a large collapse indicates the beginning of the end of the battle (Fox 1993).
At the northern end of the ridge, Custer Hill displayed no evidence of coherent tactical formations such as skirmish lines. The survey found at this location Native American bullets, a few government cartridge cases, and the famous closely-packed formation of more than forty marble markers on the western side of the hill (Fox 1993:114-115). There existed evidence of Native American positions on several sides of the hill (Fox 1993:116), so the tactical picture of the situation here, in great contrast to the traditional romantic view of the last stand, was a knot of panicked cavalrymen clustering close together, sometimes (but comparatively rarely) firing back at the Native Americans encroaching from several sides. This was less an organized battle than it was a rout, and though any semblance of major resistance ended at this point, the fighting was not yet over (Fox 1993).

The South Skirmish Line is known as such because of the roughly linear distribution of marble markers along the ridge to the west of Custer Hill (Fox 1993:122). However, the survey provided little evidence for typical skirmish tactics on the part of the government troops in this area. The virtual absence of government cartridge cases, the large number of Native American bullets and iron projectile points and the presence of marble markers in an intermittent trail from Custer Hill down toward Deep Ravine suggested that the true conclusion of the battle may have taken place here, with the last survivors from the hill possibly fleeing toward the ravine (Fox 1993:126). An alternative interpretation views the South Skirmish Line as the site of a defensive effort on the part of soldiers from the 7th Cavalry’s Company E earlier in the battle, which then also fled toward Custer Hill as its position became untenable (Fox and Scott 1991).
The archeological investigations conducted at the site of the Battle of the Little Bighorn are of great utility for predicting patterns that may be seen in the Villasur assemblage. A similar disintegration of coherent action as a unit likely took place during the 1720 battle as casualties mounted, the stabilizing authority of Villasur was removed by the lieutenant-governor’s death, and the command became surrounded. The implications of the 1980s work in Montana to the 1720 Spanish expedition is discussed in greater detail below, but an additional case study illustrates the nature of the post-battle looting processes that may also have taken place.

**The Battle of the Teutoburg Forest, AD 9**

The Battle of the Teutoburg Forest was one of the greatest military defeats ever suffered by Imperial Rome. Fought in September of AD 9 in the modern-day state of Lower Saxony in northwest Germany, the battle resulted in the complete destruction of three Roman legions under the general Publius Quinctilius Varus, and ended all attempts by the Roman state to permanently conquer the German lands to the east of the Rhine River (Wilbers-Rost 2009). Ambushed by a large Germanic force under Arminius, Varus’ legions were driven into a prepared area from which the Germanic warriors were able to attack the Romans from the relative safety of a constructed earthen wall. The Roman soldiers apparently attempted to assault the wall, but this attack was unsuccessful and Varus’ force was ultimately annihilated (Rost 2009; Wilbers-Rost 2009). Aside from the engagement’s obvious significance to the future historical development of the region, the archeology of the battle provides an excellent illustration of large-scale post-battle looting processes that are important for understanding the evolution of the Villasur site.
An avocational archeologist discovered the battle site in the late 1980s, and in 1989 excavations commenced in an open field known as the Oberesch. This was the location of the final destruction of the Roman force, and was an excellent site for an ambush, being situated on a narrow strip of dry land between an imposing hill on one side and a wet, marshy area leading to a deeper bog on the other. The investigation of the Oberesch over the ensuing decades yielded thousands of bronze and iron artifacts, hundreds of coins, and six burial pits containing the skeletal remains of soldiers, mules, and horses (Wilbers-Rost 2009). The disarticulated nature of these remains was a clear indication that they had lain on the surface for years and only been buried after decomposition was well advanced, most likely by a second Roman force under Germanicus that undertook a new offensive against Arminius in AD 15 and visited the battlefield during the campaign. The excavations in the 1980s and 1990s also examined the remains of the majority of the earthen wall constructed by the Germanic force (Wilbers-Rost 2009).

Of the more than four thousand metallic artifacts retrieved, the vast majority were very small and included fragments of clothing adornments, fasteners, lances, pila (Roman throwing spears), shields, equestrian hardware, and tools. Interestingly, the physically largest artifacts found on the Oberesch were located among an unusually dense concentration of material under a portion of the earthen wall that had collapsed during or soon after the battle. These larger finds included tools, weapons, and a full face mask from a Roman helmet (Wilbers-Rost 2009). Rost (2009) points out that Teutoburg Forest was a battle whose conclusion was unusually conducive to looting. The totality of the Roman defeat left no possibility of the dead being removed from the field, and the victors could remain for a substantial length of time to conduct extensive looting activities.
The spatial distribution of artifacts of different sizes and the dense concentration under the collapsed portion of the wall is a reflection of this lengthy and thorough battlefield salvage process. It is possible that the looters on the Oberesch gathered pieces of equipment for the raw materials they contained as well as for their intact function as weapons or accoutrements, resulting in little distinction in perceived value between intact and broken items (Rost 2009). Within a few hours after death, rigor mortis would make the retrieval of uniforms from corpses very difficult, and the forcible removal of clothing from the dead in these circumstances would predictably result in a garment’s integrity being compromised. Rost (2009) presents this scenario as a very plausible explanation for the recovery from the battlefield of many small items that were once attached to a soldier’s uniform or clothing, such as belt buckles, scabbard and uniform apron fittings, and plates and fasteners from armor. Larger items (including complete and mostly intact weapons and shields) would be easily seen and removed, though projectile points and other small items would typically either escape notice or be considered to be of little value (Rost 2009). This generalized retrieval of nearly every item that could be put to use created the pattern of artifacts seen in late twentieth century archeological excavations, namely, the typically sparse distribution of small items and almost complete absence of larger items.

The contrasting dense distribution of artifacts both large and small beneath the fallen segment of the earthen wall is illustrative of the thoroughness of the looting of the field (Figure 7-5). Quantities of wall material must have buried these areas fairly soon after the battle, or the same looting activities would have taken place here. Instead, the aforementioned large artifacts were recovered, along with portions of the skeletons of
two Roman mules with intact harnesses, bells, and bits (Wilbers-Rost 2009). It is possible that looting was unusually intense on the Oberesch, as the area was the scene of the climax of the battle, densely populated with casualties, and attractive to those seeking to retrieve equipment from the site. Indeed, the excavations also retrieved a nearly complete silver sword scabbard from the edge of a bog roughly two kilometers to the north of the location of the wall. This artifact’s survival may be due to the isolation of the area from the main battlefield, thereby rendering the location less attractive to looters (Rost 2009).

![Figure 7-5. Plan views of the Teutoburg Forest Oberesch excavations. Digits in all images indicate excavation trench numbers. The dark line of the Germanic earthen wall is visible in the top image (Wilbers-Rost 2009:124). The bottom left and bottom right images illustrate the greatly increased concentration of artifacts encountered beneath fallen material in the central portion of the wall. The bottom left view plots artifacts that are not typically attached to a soldier such as weapons and shields (Rost 2009:53), and the bottom right view plots items that are closely attached to an individual (buckles, scabbards, etc.) (Rost 2009:54). Both categories of equipment have clearly not been subject to battlefield looting processes in this area.](image-url)
Rost (2009) is absolutely correct in his assertion that Teutoburg Forest was a highly unusual battle. A catastrophic defeat in which one combatant is completely destroyed and their dead are left on the field to loot at will is not a typical outcome for a tactical military engagement in any era. Yet these characteristics are all shared by the Roman debacle at Teutoburg Forest, the destruction of Custer’s battalion at Little Bighorn, and the ambush of Villasur in eastern Nebraska. Though the precise site of the Villasur engagement has yet to be located, previous work on the patterning of battlefield artifacts in situations involving the loss of military command and control and the looting behaviors that take place following a catastrophic defeat allow a great deal to be surmised about the Villasur assemblage.

The Battlefield Archeology of the Villasur Expedition

Fox (1993) emphasizes the importance of strong leadership, quality training, and the perception of one’s own military superiority in maintaining the coherence and effectiveness of a force during an engagement. The loss of these stabilizing influences results in the progressive erosion of a command’s cohesion, up to and including the complete collapse of coordinated unit action due to combat shock and the fleeing of soldiers as individuals. The progressive collapse of fighting positions under the pressure of numerically superior attackers has been observed archeologically at the Little Bighorn (Fox and Scott 1991; Fox 1993; Scott and Fox 1987; Scott et al. 1989, 1998), and this phenomenon may well play a role in many catastrophic defeats, though battlefield salvage activities like those observed on the Oberesch would undoubtedly reduce the archeological visibility of such a collapse in a pre-firearm context.
Unlike Custer and the 7th Cavalry, the Spanish soldiers and allied Native American warriors of the Villasur Expedition did not willingly ride into battle on the morning of August 14, 1720, prepared for and expecting a fight. As summarized in Chapter 3, the Pawnee attack occurred at dawn while the expedition was in the midst of breaking camp and saddling the horse herd. This being the case, the progressive loss of command and control likely took place much more rapidly than at the Little Bighorn. Indeed, Villasur’s apparent death near his tent in the initial volleys, before he was able to take effective command of defensive measures (Bandelier 1890; Thomas 1935), would have only exacerbated the general confusion.

The Villasur battlefield was also more geographically compact than the Little Bighorn site. While the final stages of the latter battle involved Custer’s cavalrymen fighting and retreating from at least five different positions, if the Segesser II hide painting is to be believed the main group of Villasur’s soldiers were surrounded and destroyed very close to their campsite. This course of events is quite plausible; the early loss of Villasur would have forced any subordinate officers to take command and assert their authority while under fire, a situation that would have been extraordinarily confusing at best and actively disruptive at worst. The Spaniards and their allies must have rapidly split into two separate groups, as the stampeding of the horse and mule herd after the first shots drew a collection of pursuers away from the camp. This group, which later may have succeeded in rescuing several survivors from the surrounded main body (Bandelier 1890; Thomas 1935), chased down and retrieved many of the animals that had fled. The degree of training possessed by the soldiers under Villasur’s command is unclear, though it is likely that a mix of soldiers with substantial experience serving in the
frontier presidios and those with very little military training served in tandem. We know that at least a few New Mexican civilian settlers were present (Kessell 2002; Thomas 1935).

With the almost immediate removal of a central leadership figure in the form of Villasur and a variable level of military training among the soldiers as a group, the implementation of a coordinated response by the survivors of the initial volleys was undoubtedly difficult. Smoke from the firing of muskets would almost certainly have obscured the view of both attackers and defenders shortly after firing commenced, adding to the confusion. While the Spaniards’ confidence of being a militarily superior force to any potential combatant they might encounter on their march may have been strong the day before, the surprise of the attack and the casualties suffered in the initial moments must have blunted this confidence almost immediately. All of these developments combined to rapidly splinter the unity of the Spanish force, and combat shock likely followed quickly.

The Segesser II hides may depict the phenomenon of bunching as described by Fox (1993), an unconscious development caused by battlefield stress and the absence of effective command. The individuals in the central group of seventeen figures are crowded together shoulder to shoulder, firing in all directions at the attackers encroaching from all sides (Figure 7-6). Several of the soldiers are depicted as firing, but bunching is an indication of a lack of coherent tactics (as explored during the Little Bighorn investigations), and a visible sign of the disintegration of unified action. The rate of progression of this process and the length of the battle are uncertain, but as mentioned above the Segesser II depiction of the force being surrounded in camp suggests that the
period of fighting was quite brief, the Spanish force being unable to retreat or occupy a more favorable defensive position.

Figure 7-6. The central group of Spanish defenders as depicted in the Segesser II replica on display at the Nebraska History Museum in Lincoln, Nebraska. The tight grouping of the soldiers may be a representation of the combat phenomenon of bunching, an unconscious action indicative of the loss of coherent command and the breakdown of conventional tactics. Full disintegration will shortly follow (Fox 1993). Photo by the author.

The final collapse of the surrounded soldiers in the Spanish encampment likely followed soon after their bunching together into an impromptu defensive formation.

While the testimony of survivors indicates that repeated charges by the men that had retrieved the horse herd succeeded in rescuing a few survivors from the central formation, the effort was too late for the majority of the engaged soldiers (Bandelier 1890; Thomas 1935). This once again suggests that the battle was very short, as the mounted group only just had time to return to the scene of the fighting after their animal recovery activities to save a few individuals. Alonso Rael de Aguilar, one of those rescued by the return of the horsemen, noted in his testimony that “while those who were mounted were sufficient to make [the attackers] retreat, the rest were unable to aid, as they were already dead” (Thomas 1935:227). Though none of the survivors explicitly mention the event, it
remains possible that a portion of the soldiers in the central formation attempted to flee following the complete breakdown of resistance, evidence for this type of behavior being archeologically observed at the sites of other catastrophic defeats such as Towton and Little Bighorn (Fox 1993; Gravett 2003). It is proposed for the purposes of this discussion that escape would have been attempted toward the west, in the direction of the horse herd, but in their final extremity the soldiers of Villasur may have also made for the Platte or the Loup rivers in an attempt to evade their attackers.

With the catastrophic defeat of the Spanish force and the retreat of the survivors back to the south, the battlefield was left to the Pawnee. Aside from the corpses of the 44-46 Villasur casualties (Hadley et al. 1997; Thomas 1935), Aguilar testified that virtually all of the expedition’s provisions and equipment had been left behind (Thomas 1935:228). The battlefield immediately after the cessation of fighting would have contained the bodies of the dead men and possibly horses and mules, saddles, clothing, ammunition, food, tents, containers for water (likely the olive jars of the type described earlier in this chapter), and various miscellaneous items such as Villasur’s tobacco, baize cloth, and sombreros meant for trading with Native Americans. The cuera leather coat, adarga shield, and smoothbore flintlock musket of each of the 33-35 dead Spaniards would be available for the taking (though Father Minguez may not have been armed). Swords and daggers would be present on many individuals as well. Each of the eleven dead Native American allies was armed with bows and arrows and possibly bladed weapons, and was also protected by leather armor. Any of the attacking Pawnee force that had been killed by the Spanish also lay on the field with their weapons. This abundance of artifacts would make for a rich archeological record indeed, had the battlefield been left unmolested. But
as was clearly illustrated by the Teutoburg Forest excavations on the Oberesch, while a
catastrophic defeat leaves an unusually abundant quantity of weapons, armor, and
accoutrements on the field, it also represents an unusually attractive target for plunder.

The Spanish and their allies having departed the area, the Pawnee were free to loot
the battlefield at their leisure. The stripping of the bodies for their clothing and weapons
undoubtedly took place, though the onset of rigor mortis necessitating violence to remove
clothing did not likely become an issue here. Thousands, if not tens of thousands of
Roman casualties lay on the ground on the Oberesch after the destruction of Varus’
legions (Rost 2009; Wilbers-Rost 2009), and the attending to of this many corpses
understandably took a significant amount of time, resulting in the violent stripping
processes observed archeologically (Rost 2009). A maximum of forty-six Spanish and
allied casualties were present on the Villasur battlefield, and the recovery of clothing
from this quantity of corpses by the victorious Pawnee likely could have been completed
within a few hours (Pawnee dead would obviously not be subject to this treatment).

The battlefield as a whole underwent the same thorough salvage process as at
Teutoburg Forest. Any item large enough to be noticed, in most cases even if it was not
immediately serviceable (such as smashed weapons or shields), was removed. The future
disposition of these items was governed by trading activities between the Pawnee villages
and beyond. The five olive jar fragments recovered at Eagle Ridge that likely originated
from the expedition ultimately found their way into the archeological record 110
kilometers from the site of the battle. It is possible that other items from Villasur’s force
traveled even farther afield. Much like the isolated silver scabbard from Teutoburg Forest,
larger artifacts were more likely to have remained in situ in inconspicuous locations,
possibly on the vegetated riverbank of either the Platte or the Loup. However, artifacts deposited in this or a similar context were likely either washed away or deeply buried by river fluvial action in the years since the battle. Colonial Spanish soldiers never returned to the Villasur battlefield with a burial detail like those at the Little Bighorn and Teutoburg Forest. As such, the casualties of Villasur’s final battle likely lay on the surface for a considerable length of time after the looting of the site was completed. Eventually, they may have been washed away or buried by fluvial sediments.

The Villasur battlefield as it exists today (assuming it has not since been disrupted by river fluvial action) is likely represented by a collection of small artifacts, predominantly made of metal. Though small fragments of horse tackle, clothing adornments, melee weapons and musket furniture should be expected to be present in some quantity, the majority of the assemblage is probably comprised of lead musket balls. The balls fired by the French trade guns that the Pawnee would have had access to were ideally of .55 to .56 caliber, though archeological evidence from French sites in Alabama and Michigan suggest that the actual diameter of French trade gun musket balls ranges from .54 to .59 caliber (Hanson and Harmon 2011:80). The caliber of Spanish muskets is less well-known, as New Mexico’s economic situation resulted in the employment of a heterogeneous collection of weaponry by Spanish soldiers on the frontier. It is known, however, that flintlocks of .75 caliber were being used by troops in northern New Spain in the early eighteenth century, though they were not well-regarded (Thomas 1935:147). Nevertheless, with the caliber range of French musket balls being known, the association of a given recovered ball with one group of combatants or the other may be as simple as a process of elimination.
Several artifact patterns can be surmised given what is known about the likely course of the battle. The destruction of the Villasur Expedition predated the general use of breech-loading rifled weapons and metal cartridges, so unlike past investigations performed with the Little Bighorn data, it is impossible to differentiate individual weapons using the lead musket balls from the Villasur site. Furthermore, the absence of ejected cartridges makes the identification of firing positions more difficult. It is generally possible, though, to determine whether a spherical musket ball has been fired. Unless the projectile leaves the weapon and comes to rest in soft ground without striking any intervening object during its trajectory, musket balls are typically deformed in some way upon firing. This deformation can range from dramatic flattening after encountering a hard object to minute asymmetries due to glancing ricochets (Sivilich 2009). In addition, dropped musket balls that do not exhibit any of these firing deformations are often encountered on military sites, due to soldiers mistakenly dropping a ball while reloading (Sivilich 2009).

Should the Villasur site be located in the future, it will likely be possible, then, to determine the location of firing positions by examining the distribution of dropped, unfired musket balls. If the course of the engagement progressed as indicated by survivors’ accounts and the Segesser II hide painting, the central feature of the site will likely be a relatively dense concentration of fired .54 to .59 caliber French musket balls and dropped, unfired musket balls. This concentration of artifacts would represent the location of the central group of bunched-together Spanish soldiers. Incoming musket balls from the Pawnee attackers can be expected to cluster in this location, and unfired
balls dropped by Spanish soldiers attempting to rapidly reload under tremendous stress can also be expected to be fairly well represented.

The location of the multiple charges of the mounted Spanish soldiers may also be visible as a more diffuse concentration of fired Pawnee musket balls. Unfired dropped balls have the potential to be located here as well, although reloading on horseback in the midst of the battle can be expected to have been less common than reloading operations by the dismounted foot soldiers. Finally, the ultimate collapse of the Spanish position has the potential to be visible in the archeological record. If the surrounded troops in the Spanish encampment attempted to flee after succumbing to combat shock, as also occurred at the Little Bighorn and Towton, their paths away from the central battle area should be indicated by scattered fired Pawnee musket balls. These areas should not display dropped musket balls, as the panicked Spanish soldiers would have ceased firing by this point. Likewise, Pawnee firing positions will be indicated by fired Spanish musket balls and dropped Pawnee projectiles.

**Conclusions**

Ideally, it is ultimately hoped that the above projected artifact distributions will be tested against the actual proveniences of recovered Villasur battlefield material. Future investigations may be able to resolve the permission issues that limited the March 2011 survey to the extreme northeastern portion of the ideal search area. It is possible that the site has either been disrupted by fluvial action or buried too deeply under sediments by the same processes for detection, but the search area with the highest probability to contain intact battlefield deposits has yet to be examined.
The study of the Villasur Expedition is valuable to the field of battlefield archeology. Truly catastrophic military encounters, in which the defeated force is incapable of operating as an effective unit afterward, are uncommon. A great deal of important archeological work has been done on these types of military actions at Little Bighorn, Teutoburg Forest, and Towton, characterizing the behavioral patterns of soldiers as command and control breaks down during a battle, and the salvage patterns of looters at unusually rich sites after the conclusion of the fighting. The eventual examination of the Villasur assemblage will help to further refine these models, and the investigation of other sites of this type in the future will possibly allow further distinctions to be made in behavioral patterns according to variations in training, weaponry, and tactics.

A full understanding of the Villasur battle requires it to be considered within the appropriate strategic, operational, and tactical context. The second chapter of this work outlined the strategic developments that resulted in the perceived need for a reconnaissance campaign to determine the state of French settlements on the Great Plains. Colonial New Mexico was located at the extreme northern frontier of Spanish North American possessions, and its vulnerability at the end of a long and tenuous supply line required (in the minds of Spanish governmental authorities) a proactive stance in dealing with potential threats. Villasur’s force would not have been in the location where it met its end without this perceived strategic need.

Chapter 3 discussed the operational and tactical conduct of the 1720 campaign, and the fourth chapter determined the expedition’s most likely route during these activities. The geospatial analysis of the force’s route in Chapter 4 is illustrative of the utility of modern computer programs in rapidly constructing alternative routes for comparative
purposes. A detailed reexamination of the expedition is long overdue not just because of the interpretive possibilities offered by the theories of battlefield archeology, but due to the ability to develop new conclusions utilizing the rapid visualizations that computer programs provide. These new techniques allowed the definitive conclusion in Chapter 4 that the Kansas El Cuartelejo location and the Loup/Platte battlefield site are the most likely waypoints for the 1720 campaign, and facilitated the development of a search area in Chapter 6.

The modern reproduction of the Segesser II hide painting created by Curt Peacock permitted a detailed examination of the clothing, weapons, accoutrements, and actions of the figures depicted, and made the comparison of these features with survivors’ accounts and historical records in Chapter 5 much easier. The search strategy employed in the sixth chapter owed much to prior metal detector survey techniques employed on military archeological sites, and is another indication of the appropriateness of revisiting the subject of Villasur at this point in time. The emergence of battlefield archeology as a subdiscipline is relatively recent, and the search strategies and use of technology appropriate to the unique nature of conflict sites has only recently been developed.

There is little greater indication of the importance of constructing a database of battlefield sites than the use of conclusions derived from Little Bighorn and Teutoburg Forest data to characterize the likely Villasur assemblage in this chapter. As has been mentioned multiple times in this work, the Villasur Expedition is historically important in its own right; the Spanish never again attempted to assert their authority so far north on the Great Plains, and this decision had major repercussions for the future territorial evolution of the United States. Yet the campaign has even greater significance to
battlefield archaeology, as its study represents the opportunity to further develop models of battlefield behavior and characterize the archeological differences in combat assemblages over time. Pedro de Villasur and every one of his soldiers, whether a battle survivor or not, have been dead for nearly three centuries, but they still have much to tell us.
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