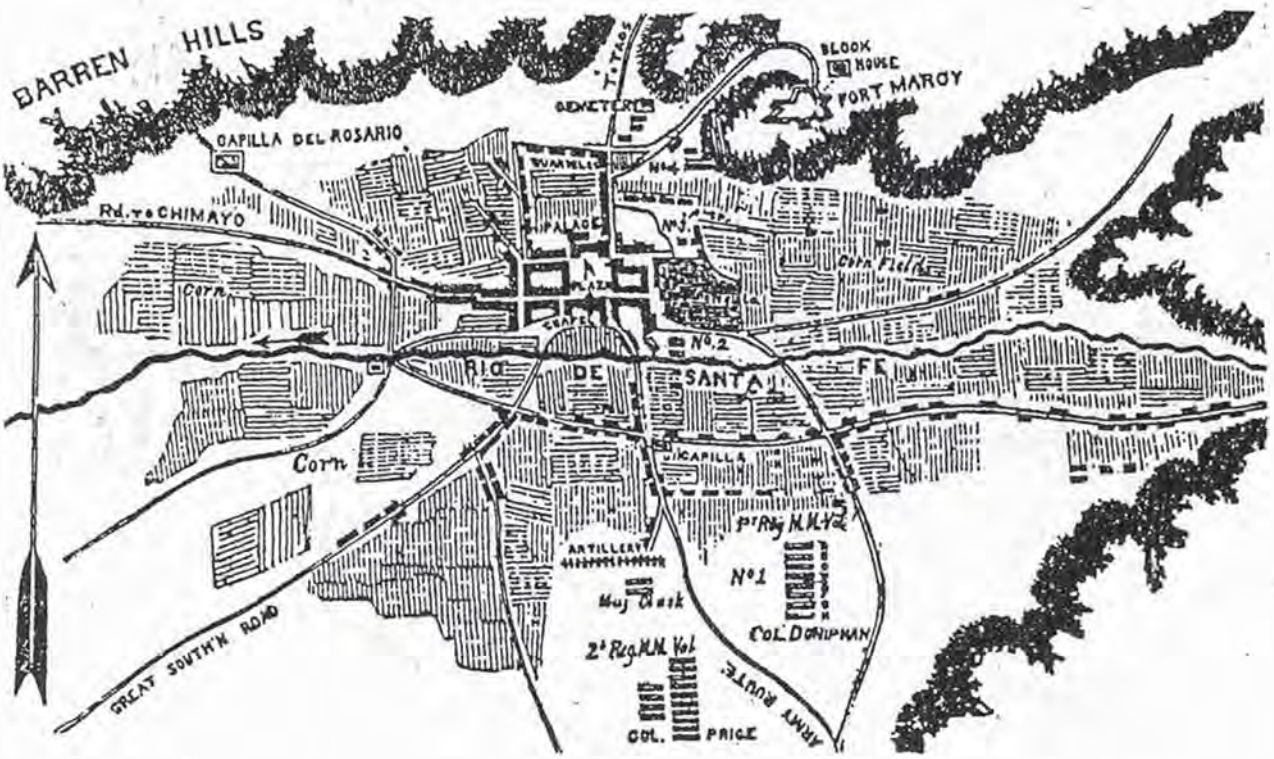

THE HISTORY AND ARCHAEOLOGY OF THE HISTORIC FORT MARCY EARTHWORKS SANTA FE, NEW MEXICO

Edited by
Mary June-el Piper

Based on a Report by
Cordelia T. Snow, Historic Sites Archaeologist
and
David J. Kammer Ph.D., Historian

1996

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PREFACE

This report presents the results of a multi-phase project initiated by the City of Santa Fe to document the history and guide the management and public interpretation of Historic Fort Marcy.

The first phase of the project was identification and review of published and other written sources of information on the fort (Wozniak 1992). The result of Wozniak's research was a comprehensive documentation of the history of Fort Marcy, included in this publication as an appendix. One major question uncovered by the first phase was whether or not the fort was built on top of the remains of a prehistoric pueblo. Preliminary archaeological testing two years later during the second phase of research yielded abundant evidence of prehistoric occupation of the hill but little information on the historical features of the fort itself (Acklen 1994). The report on this work is also included here as an appendix. The following year, the project's third phase involved limited archaeological excavation directed by Susan Swan that confirmed the presence of prehistoric remains and revealed the method of the fort's construction. At the same time, additional research and analysis of the written records enabled David Kammer to describe the historical context of the site. Cordelia Snow and David Kammer prepared the report on the third phase of work in 1995. Their report (Snow and Kammer 1995) provided the basis for this document.

This document incorporates information from the three phases of work completed to date. The committee intends this report to be used as a resource in public meetings concerning management of Historic Fort Marcy and by professional historians, archaeologists, and planners as they prepare interpretive materials. Therefore this publication is divided into a summary of the research results and a set of technical appendices outlining analytical methods and results.

- The report begins with an introduction to the project. Descriptions of the natural and cultural history follow, as well as the historical background of the fort and previous archaeological work in the area. These sections are important because they provide a framework for the current research and a background for future interpretation.
- The next section explains the research design that outlines the scope of this study. These research questions allowed us to learn as much as possible about the site, while disturbing it as little as possible.
- Following the research questions is a discussion of the findings of the archaeologists and a summary of those results in light of the historical research conducted during this and previous phases.
- The final section provides conclusions and makes suggestions for future research, management, and interpretation.

Technical terms appear in **bold** in the text and are defined in the glossary. All books, articles, maps, and other written documents cited in this report (generally in parentheses by author and year) are listed in the "References" section.

The technical appendices to this report contain the following information: the original research design for the third phase of work, the historian's section on the significance and context of the site, and individual reports discussing the ceramics, chipped stone artifacts, animal bones, and corncobs recovered during the 1995 excavations. These artifacts provide information about the people who lived or worked at a particular location, the period of occupation, and the types of food they ate. Next is appended the report of the 1994 testing project. The final appendix is the report presenting the results of the original historical and archival search.

INTRODUCTION

Archaeological and historical investigations reported in this volume include limited excavation at Historic Fort Marcy in the areas of the banquette/platform, moat and revetment, blockhouse, and a slurry pit between June 19 and 30, 1995. These investigations were the final portion of a three-phase project designed to collect information for the management and historical interpretation of Fort Marcy. The 1995 investigations at Fort Marcy were sponsored by the National Park Service, the Santa Fe Trail Center, the Historic Preservation Division of the state's Office of Cultural Affairs, the City of Santa Fe, and the city's Archaeological Review Committee. David Kammer was the project historian, while Cordelia Thomas Snow served as project advisor for the historical archaeology aspect of this study.

Historic Fort Marcy is included in the National Register of Historic Places and the State Register of Cultural Properties (designated as Laboratory of Anthropology site number LA 111). Located on a ridge overlooking the Downtown and Eastside Historic District in Santa Fe, Historic Fort Marcy lies within the city's Prince Park. The site is bounded roughly by Kearny and Prince Avenues to the north, Arroyo Saiz to the east, Paseo de Peralta to the south, and Otero Street on the west. Prince Park covers 6.5 acres and lies at an elevation of 7,062 feet.

Historic Fort Marcy is the only earthen fortification constructed in New Mexico by Brig. Gen. Stephen Watts Kearny's Army of the West during the Mexican American War (1846–1848). In fact, it is one of only two that were constructed, the other being in Brownsville, Texas. The fortification was named for Secretary of War William L. Marcy and was constructed under the direction of Lt. Jeremy Gilmer in 1846 and 1847. Today the site consists of the eroded remains of an irregular six-sided "star" fortification and moat with an interior **banquette** and platform for gun emplacements and a **magazine** built partially underground. In addition, evidence of an adobe **blockhouse** has been identified northeast of the fortification.

In 1992, consulting historian and archaeologist Frank Wozniak prepared an inventory of records regarding the prehistoric and historical uses of the site. During his research, Wozniak located a number of letters from Lieutenant Gilmer to Captain George L. Welcker in the Lenoir Family Papers Collection at the University of North Carolina. These papers added much to our knowledge regarding construction of the fortification and blockhouse at Fort Marcy.

In the second phase of the project, TRC Mariah Associates, Inc., of Albuquerque completed twenty-three auger tests and a one-square-meter test with a shovel to identify subsurface deposits at the site. Acklen and his colleagues (1994) concluded that the blockhouse was constructed of adobe, not wood as previous historians believed (Keleher 1952:109). Tests in the area of the ramparts indicated they had been constructed of redeposited **midden** soils. Auger tests of the possible **slurry pit** indicated a "dense clay containing midden fill to a depth of 90 cm. below ground surface" (Acklen 1994:22). Ninety centimeters (nearly three feet) indicates a significant amount of trash, thereby supporting early researchers' beliefs that the hill was the likely site of a prehistoric occupation (see Wozniak 1992, appended to this report).

The 1995 project confirmed several of the preceding year's findings. The blockhouse was, in fact, constructed of adobe, and the ramparts were constructed of redeposited midden soils from multiple prehistoric occupations of the hill (dating from about A.D. 1000–1250). In addition, trenches dug west of the magazine and inside the fort enabled inspection of the "rammed earth" construction of the banquette/platform. Results of the limited tests in the area of the slurry pit were inconclusive. Finally, the archaeological and historical evidence suggests that the fort was never garrisoned. Both during and after construction of the fort, the troops were housed in Santa Fe near the plaza. However, the fact that from the beginning the fort was more a symbol than an active military installation does not belie its importance as a part of Santa Fe's historic past.

For much of the twentieth century, archaeologists and historians have devoted a good deal of energy to piecing together Santa Fe's past. Nevertheless, Fort Marcy has for the most part been neglected. Civic leaders sought to preserve it and open it to the public as early as 1912 (Prince 1912:10; Santa Fe City Planning Board 1912). Eight decades later, as the twentieth century draws to a close, efforts to interpret the site for the public are still underway.

Current city leaders and planners, recognizing that the fort offers insights into an essential but underappreciated chapter in Santa Fe's history, now seek to include the fort as part of a more complete picture of the city's past. It is the city's intent to interpret the site for the education and benefit of residents and visitors. The discussion of Fort Marcy and its role in Santa Fe's history included in this report documents the efforts undertaken in 1995.

NATURAL AND CULTURAL HISTORY

PHYSICAL ENVIRONMENT

Santa Fe is located in the Española Basin, part of the Southern Rocky Mountains physiographic zone. The basin is bounded by the Sangre de Cristo Mountains on the east and the Jemez Mountains on the west. Historic Fort Marcy is located on a south- and west-facing ridge, part of the western foothills of the Sangre de Cristo Mountains and more than 60 ft above the Santa Fe plaza (Fig. 1). Soils atop Fort Marcy Hill are well-drained upland terrace soils with moderate permeability, rapid runoff, and potential for severe erosion. They consist of a thin layer of "light reddish-brown sandy clay loam" above a layer of "gravelly sandy clay loam to a depth of sixty inches or more" (Folks 1975:43). The surface is moderately eroded. The area is drained by the Santa Fe River, which is a tributary of the Rio Grande.

When the first Spaniards settled Santa Fe, possibly as early as 1605, they found the Santa Fe River a perennial stream. In addition, a large **cienega** covered a portion of the modern city north, east, and south of the Spanish colonial plaza, which was larger than it is today (Snow 1992). Other seeps and springs outcropped at Cieneguitas, located along the western border of the City of Santa Fe Grant, and at Agua Fria, Cieneguilla, and La Cienega. In fact, the abundance of water in the Santa Fe area, especially with the advent of the cooler and wetter weather of the "Little Ice Age" around A.D. 1450, may explain why the area had been abandoned by Puebloan people before the arrival of the Spanish (Post and Snow 1992:6). The prehistoric occupants did not have the technology to deal with excess surface water and a high water table.

The nearest sources of water to Fort Marcy Hill may have been seeps and springs in Arroyo Saiz to the east of the site, and/or from springs in the cienega to the south of the site. Not until Spaniards settled Santa Fe was there an acequia at the base of Fort Marcy Hill. The lack of water on the hill would eventually play an important role in decisions concerning the materials used for construction of Historic Fort Marcy.

Fort Marcy Hill is located within the piñon-juniper woodland of the Upper Sonoran Grasslands. Early photographs and sketches show that, as recently as the 1930s, the hills surrounding Santa Fe were denuded of all but native grasses due to the need for firewood for heating and cooking. With the introduction of alternative fuels in the twentieth century, piñon and junipers once again cover the hills surrounding the city. Some of the trees presently found within Prince Park were planted by the City of Santa Fe within recent years. Several small Siberian elms are growing within the confines of the western end of the fort. These fast-growing imports are a common weed tree. In addition to scattered **chamisa,** a number of large stands of fourwing saltbush are also found on the site. Although "manicured" and maintained by the city, this recognized site indicator (because it grows well in the disturbed soils of abandoned human habitations) apparently occurs naturally on the site. Further, according to the New Mexico Native Plant Protection Advisory Committee (1984:112–113), Santa Fe cholla, a "biologically threatened" species on the State Endangered Species List, is found only on south and west facing slopes in Prince Park. The growth of native grasses and other flora found on the site has been encouraged

through the use of a sprinkler system installed by the city several years ago. According to Randy Thompson of the City Parks and Recreation Division, Prince Park is mowed once or twice a year, and trash is collected daily (personal communication, 1995).

Animals found in the project area include desert cottontail and black-tailed jackrabbit (Lang 1980a:3). Complete lists of plants and animals in the project area can be found in Kelly (1980).

Climate in the Santa Fe area is semiarid. Precipitation ranges from 12 to 15 inches annually, with most occurring from intense summer thunderstorms. The growing season is approximately 165–170 days (Folks 1975:43) and is sufficient for growing crops in most years. However, given the lack of water and the rapid runoff and severe erosion potential of the local soils on top of Fort Marcy Hill, the immediate area of the fort would not have been cultivated prehistorically. Instead, crops would have been grown in the valley below the site.

CULTURAL HISTORY OF THE SANTA FE AREA

Recent archaeological investigations indicate that people have lived in the Santa Fe area since at least 1000 B.C., and possibly earlier. A number of different chronological schemes have been used to describe the region's cultural history. Most are based on the types of artifacts, sites, and ways of life characteristic of the inhabitants. The well-known Pecos Classification (including Basketmaker and Pueblo I–V periods) has been replaced by recent researchers on Rio Grande prehistory with the designations used here. The following discussion covers only those periods for which material or historical evidence of occupation was found during the Fort Marcy project. The descriptions are summarized from a number of sources, primarily Cordell (1979), Dickson (1979), and Peckham (1984).

Developmental Period (A.D. 600–1200)

Between A.D. 600 and 1200, occupants of the Santa Fe area began to depend more heavily on growing corn and other crops introduced during the previous period. According to Dickson (1979:11), the Early Developmental period (A.D. 600–900) is characterized by small villages of circular **pithouses,** often found in association with **jacal** surface structures. An example of the latter was uncovered during excavation of Pindi Pueblo (Stubbs and Stallings 1953). Ceramics recovered in association with Early Developmental period sites include **mineral-painted** Lino Black-on-gray, White Mound Black-on-white, and an "early" form of Red Mesa Black-on-white (Dickson 1979:11).

The Middle Developmental period (A.D. 900–1100) is also known as the Red Mesa phase (Dickson 1979), named for the ceramic type frequently found on sites of the period. Beginning with this period, the number of sites found in the Santa Fe area increases. Dickson (1979:11) notes that the Middle Developmental period "was marked by the transition from pithouses to contiguous-walled adobe surface pueblos." It was also during this period that the pithouse evolved into the **kiva** in the Rio Grande (Peckham 1984:276). The majority of ceramics recovered from the testing program at Historic Fort Marcy date to this period (Acklen 1994).

Both site size and number increased throughout the Santa Fe area during the Late Developmental period (A.D. 1100–1200), possibly as the result of an increasing dependence upon agriculture.

People have to stay in one place for longer periods when they begin to rely on corn, which must be planted, tended, and harvested on schedule. Residential sites in the area are often moved from floodplains with arable lands to terraces above those lands. One possibly atypical site located in the Tesuque Valley consists of clusters of roomblocks of ten to twenty rooms around a **great kiva.** The imported ceramics and other artifacts recovered from excavations at the site suggest that perhaps it represents political expansion into the area by groups from the San Juan Basin (Cordell 1979; Peckham 1984).

Coalition Period (A.D. 1200–1325)

The Coalition period is marked by population expansion in the Santa Fe area, and the introduction of **carbon-painted** ceramics such as Santa Fe and Wiyo Black-on-white. Pindi Pueblo, the Schoolhouse site, Arroyo Hondo, an unnamed site beneath the Santa Fe City Hall, and numerous other sites in the area date from this period. Located on terraces above perennial streams or springs, many of the sites appear to be "local responses to new ideas" (Dickson 1979:12) being brought into the area from other regions.

Classic Period (A.D. 1325–1600)

The production of **lead-glazed** ceramics marks the beginning of the Classic period. Whereas huge sites, including most of the modern pueblos, are found elsewhere in the region during this period, almost inexplicably, by about A.D. 1425 the Santa Fe area had been abandoned (with the exception of Cieneguilla). And even Cieneguilla had been abandoned by the Late Classic period (Dickson 1979:35). Dickson (1979:77) postulates that environmental stress reduced the region's ability to support human occupation, resulting in the collapse of the local culture. Post and Snow (1992), on the other hand, have speculated that the abundance of surface waters from seeps and springs in the Santa Fe area and the high water table, coupled with a cooler and wetter climate, were responsible for the abandonment of the area during this period (see above). Only two sherds dating to this period were recovered during the Fort Marcy testing program, suggesting limited use of the hill during this period (Acklen 1994).

Spanish Colonization (A.D. 1600–1680)

Prior to the occupation of New Mexico by Spaniards, the Pueblo Indians were agriculturalists who grew primarily corn, beans, and squash, raised turkeys, and augmented their diet by hunting and gathering. Domesticated livestock (cattle, horses, sheep, and goats) and a wide variety of cultigens were brought to New Mexico by Spaniards. These cultigens included wheat, barley, garbanzos, chile, onions, apples, peaches, plums, and apricots—some originally from the Old World and others from further south in the New World.

In order to accomplish missionization, the Roman Catholic Church reduced or consolidated many of the pueblos into "larger and more conveniently located units" (Scholes 1959:13). Reduction was carried out in many ways: in several instances, as at San Lazaro, for example, previously abandoned pueblos were reoccupied; in other cases, small pueblos were consolidated. In brief, the lifestyle of the Pueblo Indians was dramatically altered by the presence of the Spaniards.

The Instructions to Pedro de Peralta constitute the basis for the first royal communal grant in the Province of New Mexico (Hammond and Rey 1953:1087–1091). As with earlier grants to Spanish towns in the New World, the colonists were provided with house and garden lots and fields for planting. In addition, each town had an **ejido** or area set aside as common land

(Ebright 1994:18). These lands could be used by all the colonists for gathering wood and grazing livestock. Based on later eighteenth-century documentation, it appears that the hill on which Fort Marcy would eventually be constructed was included in the common lands used by the occupants of the Villa of Santa Fe. This supposition is strengthened by the fact that there was no source of water on the hill, and therefore the area could not be cultivated.

The Pueblo Revolt (A.D. 1680–1692)

In August of 1680, the Pueblo Indians rebelled against the Spanish secular and religious authorities. Their rebellion followed nearly a decade of famine and increasing raids on the missions by Apaches. Santa Fe was attacked, initially from the south by Indians from the pueblos of Galisteo, San Marcos, and La Cienega. The next day these groups were joined by Tewas from the north, who gathered on the hills overlooking the villa (presumably including Fort Marcy Hill). Santa Fe was besieged.

The siege was eventually broken by brutal hand-to-hand combat, and the Spaniards fled to El Paso del Norte, south of the Rio Grande, where they remained until 1692. Contrary to popular belief, however, the Pueblo Indians did not do away with all things Spanish during the rebellion. Although the **casas reales** were converted into a pueblo, herds of livestock were maintained and Spanish-introduced cultigens continued to be grown.

Spanish Reconquest and Resettlement (A.D. 1692–1821)

In 1692, Diego de Vargas, accompanied by a Spanish military force made up of many of the colonists, marched to Santa Fe. They camped on the former fields of San Miguel and laid siege to the pueblo built on the site of the casas reales. From their vantage point, the Spaniards watched Indians who had come to defend the occupants of the pueblo massing on the hills to the right (Espinosa 1940:40). Within a matter of days, the Pueblos capitulated and Santa Fe was reclaimed for the Spanish king.

For more than eighty years after the Reconquest, Fort Marcy Hill apparently remained part of the common lands belonging to the villa. Historical documents indicate that numerous roads for hauling wood emanated from the plaza, one of which ran over or [illegible]y Hill (Spanish Archives of New Mexico [SANM] II:758). A map of the **presidial villa** [illegible]anta Fe drawn by Lt. José Urrutia sometime between 1766 and 1768 (Fig. 2) does not delineate property ownership but does depict the acequia at the base of the hill.

Around 1807 or 1808, Governor Alencaster began construction of La Garita, a guardhouse and powder house on the slope below Fort Marcy Hill (Ellis 1978, 1982). Maintained as the depository for the presidio's reserve firearms, the building was lightly manned but it was repaired periodically. According to Ellis (1978:9), "the June 1846 roster—made just two months before Kearny's army entered Santa Fe—shows one man again posted as *guardia en la Garita*."

Mexican Period (A.D. 1821–1846)

In 1821 Mexico declared independence from Spain. As a result, former Spanish trade restrictions were lifted, which enabled the opening of the Santa Fe Trail and trade with the United States. Santa Fe became a gateway on the trail from Independence, Missouri, to Chihuahua and points south in Mexico. Complicating these economic opportunities, however, were cultural differences that created misunderstandings over customs policies, import taxes, and government authority

for those engaged in the overland trade. For many Missouri traders, territorial expansion held the promise of eliminating those problems by extending American authority over the entire length of the trail.

The election of James K. Polk as the American president in 1844 pushed the country toward a policy of western expansion. Prompted by Polk's election and the national mood, the outgoing president, John Tyler, prevailed upon Congress to pass a joint resolution offering to annex the Republic of Texas. By March 1845, when Polk took the oath of office, the United States had extended the offer to Texas; by December the Lone Star Republic had accepted and Texas had become a state.

During his first year in office, Polk followed a foreign policy that could be termed "brinkmanship." He sent troops toward the Rio Grande, into land held by the Republic of Mexico. Already angered by the annexation of Texas, Mexico became further incensed. In the winter of 1845–1846, the Mexican government refused to negotiate the sale of part of its northern territory. Thwarted in its attempt at territorial expansion, the United States found its relationship with Mexico no longer salvageable through diplomacy. Following an incident in which Mexican troops crossed the Rio Grande and attacked an American mounted patrol, Polk declared war on May 13, 1846.

U.S. Military Occupation (A.D. 1846–1850)

In June 1846, Brig. Gen. Stephen Watts Kearny led the Army of the West from Kansas to conquer New Mexico and California. Although New Mexico Governor Manuel Armijo had planned to resist the invading forces, instead he and his troops left for Chihuahua. As a result, American forces encountered no resistance when they entered Santa Fe on August 18, 1846, and raised the U.S. flag over the Palace of the Governors. Shortly thereafter, construction of the earthen fort and blockhouse at Fort Marcy was begun. New Mexico became a territory of the United States on September 9, 1850.

Territorial Period (A.D. 1850–1912)

The territorial period in New Mexico was marked by expansion of trade and transportation routes, growth of livestock and mining industries, land grant scandals, and the beginning of tourism. The arrival of the railroad in 1879–1880 not only marked the end of the Santa Fe Trail but also introduced "new" architectural styles and building materials throughout the territory. Ironically, because Santa Fe was not located on the main line of the Atchison, Topeka & Santa Fe Railroad, the city was soon eclipsed by Albuquerque and Las Vegas. However, Santa Fe continued to be recognized as the capital of the territory, just as it had been the seat of government during the Spanish colonial and Mexican periods, and until the late 1880s the territorial legislature met in the Palace of the Governors.

The earthen fort and blockhouse at Historic Fort Marcy, never occupied, began to deteriorate almost immediately after being built. In fact, the Fort Marcy Military Reservation was moved to the site of the Spanish colonial presidio north of the plaza where it remained until it too was abandoned in 1867. The fort was reestablished in the latter location in 1875 and finally abandoned in 1894.

HISTORICAL BACKGROUND OF FORT MARCY AND ITS CONSTRUCTION

On the afternoon of August 18, 1846, Brigadier General Kearny and his troops entered Santa Fe, paraded around the muddy plaza, and were greeted by Lt. Gov. Juan Bautista Vigil y Alarid and a delegation of the city's leaders. Accompanying Kearny were Lieutenants William H. Emory and Jeremy F. Gilmer. Emory, the senior of the two officers, was a member of the army's recently formed Corps of Topographical Engineers. As he explored [illegible]ons of Santa Fe, Lieutenant Emory was not only carrying out General Kearny's orders, [illegible]so gathering data to forward to the corps commander, Col. John James Abert. This information would serve as one of the first comprehensive reports of the vast territory that shortly was to become part of the United States. Lieutenant Gilmer, an 1839 graduate of West Point, had taught engineering at the academy during the first six years of his army career. He had later served as an assistant in the building of Fort Schuyler in New York harbor, and then assisted Colonel Joseph G. Totten, the commander of the Corps of Engineers in Washington.

On August 19, the day after his arrival, Kearny ordered Lieutenants Emory and Gilmer "to make a reconnaissance of the town and select the site for a fort" (Emory 1848:32). On August 21, Emory and Gilmer provided Kearny with a map that indicated a proposed site for a fort (Fig. 3). The following day, they submitted a plan for the fort, which Kearny also approved. Located on top of a bluff 660 yards northeast of the plaza and approximately eighty feet above it (Fig. 4), the site, as Emory described it, was one "which commands the entire town, and which itself is commanded by no other." On September 16, Kearny decided to name the fort in honor of William L. Marcy, Polk's Secretary of War.

By August 24, only six days after the occupation began, Gilmer was ready to begin construction. Despite his optimism that he could complete the fort within a few months, Gilmer soon discovered that executing his plans was going to be more complicated than he had first thought. Though modest in design, the small earthen fort located above the capital city of the newly occupied land presented unique challenges to its engineer. The site's irregular contour forced Gilmer to depart from standard plans and to adopt an irregular trace, a "'Star Fort' . . . within the sides of an irregular hexagonal polygon, each face having the dimensions necessary to adapt it to the accidents of the ground which forms the site" (Gilmer in Bloom 1961:143).

A star fort (Fig. 5) differs from the more common square redoubt in the following ways:

> The star fort takes its name from the form of the polygonal figure of its plan. It is an enclosed work, with salient and re-entering angles; the object of this arrangement being to remedy the defects observed in redoubts. This, however, is only partially effected in the star fort: for, if the polygon is a regular feature, it will be found, that, except in the case of a fort with eight salients, the fire of the faces do not protect the salients; and that in all cases there are dead angles at all the reenterings. The star fort has moreover, the essential defect that, occupying the same space as a redoubt, its interior capacity will be much less, and the length of the interior crest much greater, than in the redoubt: it will

> therefore, require more men than the redoubt for its defence, whilst the interior space required for their accommodation, is diminished. These defects, together with the time and labor required to throw up such a work, have led engineers to proscribe it, except in cases where they are compelled by the nature of the site to resort to it (Mahan 1836:21).

Faced not only with the need to adapt a plan to meet a specific site, Gilmer was also forced to rely on the local building material—sun-dried adobe brick—and local workman skilled in adobe masonry. These factors influenced the form and plan, building schedule, and ultimate appearance of Fort Marcy. Despite the site's irregular contours, Gilmer developed a plan that incorporated most of the essential elements of a defensive fortification. His plan consisted of an enclosed area 270 ft long and 180 ft wide. By excavating a dry moat around the entire fort, he was able to secure a ready source of fill to raise the height of the ramparts, giving the exterior revetments a total relief of seventeen feet. For this style of construction, Gilmer followed instructions outlined in the textbook he used first as a student and later as an instructor. Regarding the moat and parapets, the book states:

> The ditch should be regulated to furnish the earth for the parapet. To determine its dimensions, the following points require attention; its depth should not be less than six feet, and its width less than twelve feet, to present a respectable obstacle to the enemy. It cannot, with convenience, be made deeper than twelve feet; its greatest width is regulated by the inclination of the superior slope . . . (Mahan 1836:33).

> To enable troops to fight with advantage, the intrenchments should shelter them from the enemy's fire; be an obstacle in themselves to the enemy's progress; and afford the assailed the means of using their weapons with effect. To satisfy these essential conditions, the component parts of every entrenchment should consist of a covering mass, or embankment, denominated the *parapet*, to shelter the assailed from the enemy's missiles . . . and of a ditch . . . the *banquette* is the small terrace on which the soldier stands to deliver his fire; the top of it is denominated the *tread*, and the inclined plane by which it is ascended the *slope* (Mahan 1836:2–4).

As he went about shaping the fortification, Gilmer quickly decided to build with **rammed earth:**

> Ordinary earth, if mixed with a proper proportion of clay, and the whole be well kneaded with just water enough to cause the particles to adhere when squeezed in the hand, may be used for a revetment, and is termed pisa [sic] revetment. Sometimes chopped straw is mixed up with the mass to cause it to bind better . . . the pisa is laid in layers of twelve inches thick, and two feet broad, and well packed (Mahan 1836:55).

When General Kearny approved Gilmer's plan for the fort, a small detail of soldiers was assigned to the site, but by August 27, Kearny had increased the detail to one hundred men and, as was common on the frontier, ordered that any soldier who labored ten or more consecutive days be compensated with eighteen cents a day in addition to his regular pay (Gibson 1935:220).

> Experience has shown that, in ordinary soils, a man with a pick can furnish employment to two men with shovels; that, not to be in each other's way, the men should be from four-and-a-half to six feet apart; and, finally, that a shovel full of earth can be pitched by a man twelve feet in a horizontal direction, or six feet in a vertical direction. To distribute the workmen, the counterscarp crest is divided off into lengths of twelve feet, and the interior crest into lengths of nine feet. These points might be marked out by pickets numbered one, two, three, &c. In each area, thus marked out, a working party is arranged consisting of a pick with two shovels placed near the counterscarp, two shovels near the scarp, and one man to spread, and one to ram the earth, for two working parties (Mahan 1836:49).

By the end of September, Gilmer estimated that the "larger portion of the embankments were made" and one third of the "revetments of the interior and exterior slopes constructed" (in a letter to Col. Totten, October 12, 1846).

On September 23, Susan Magoffin accompanied Kearny on a visit to the fort while it was under construction. She later wrote,

> The Fort occupies some two acres of ground, has double walls built of adobes, the space between being filled with stones and morter. Dwellings, store houses &c. are to be built within the wall, in the center under ground is the magazine for ammunition (Drumm 1982:140–141).

Although he never noted explicitly where the sun-dried adobe bricks were made, Gilmer's references to the availability of earth near the work site suggest they were made in the proximity of the fort. One of the liabilities of the fort—limiting its role to one of a temporary defense—was its lack of water, also a necessary ingredient in making adobe mortar. Addressing the issue of water in 1847, Lt. Richard Smith Elliot noted a spring at the foot of the escarpment (Bieber 1936:318). Near the spring ran Santa Fe's northern acequia madre, indicated on Gilmer's map as an "irrigation canal" (Snow 1988:10). With work parties numbering up to one hundred soldiers and including local masons as well, Gilmer's workers may have carried water up to a mixing site near the fort from the springs or from the nearby acequia.

Lieutenant Gilmer's reliance on earth and adobe continued to grow as the project progressed, albeit more slowly than he had originally anticipated. By early November he was able to inform a friend that "Fort Marcy is now in a defensible state" (Gilmer to Welcker, November 6, 1846). Listing the embankments, their parapets, the revetments and banquettes as completed, he conceded that the ditches surrounding the fort still needed to be deepened and widened. He also feared that the arrival of cold weather would force him to postpone completion until spring, but noted that completing the task was "not essential to a respectable defence." During the same week, Gilmer reported to Colonel Totten that the embrasures had been completed but that the magazine and blockhouse were not. Noting the quartermaster's inability to provided milled lumber, he informed Totten that he intended to place the guns on "earthen platforms made firm by pounding" (Gilmer to Totten, November 5, 1846).

According to Mahan,

> When a gun is fired often in the same direction, the ground under the wheels is soon worn into a rut; it is to prevent this that platforms of timber are used in such cases. . . . The shape of the platform is usually a rectangle. . . . The rectangular platform is ten feet wide, and seventeen feet long, for siege pieces; and nine feet wide and fifteen feet long, for field guns. . . . To lay a platform, the earth on which it is to rest should be well rammed and levelled. . . . A platform may be constructed simply of three pieces of timber . . . one under each wheel, and one under the trail, firmly secured by pickets, and connected by cross pieces (Mahan 1836:86–88).

This decision to rely on rammed earth to form the banquettes was reached through necessity. The mix of cobbles and hardened earth suggests that work crews may have poured a thick slurry in levels of ten or more inches thick over the upper embankment in an effort to stabilize the much looser soil beneath. The soil for this mortar, filled with prehistoric artifacts, was obtained on the site. While it did provide a hard surface for the banquettes, the relatively loose, unpacked soil of the underlying embankment raises the issue of how successfully the fort's walls would have withstood artillery fire (or even how many times these platforms would withstand the concussion of guns being fired from them).

Unwilling to wait for the completion of a sawmill, during October Gilmer sent additional work details to the hills above the city. Establishing a small camp, they cut "timbers for the fort and mill" (Gibson 1935:254). These references to the use of logs, as well as Lieutenant J. W. Abert's description of the blockhouse and magazine as "constructed of pine logs one foot square," suggest that despite the unavailability of milled lumber, at least some elements in the fort complex consisted of roughly milled pine (Abert 1848:754).

Lieutenant Abert (Colonel Abert's son) noted his first glimpse of Santa Fe as occurring when "Fort Marcy came in view, and our glorious flag" (Abert 1848:754; also see Fig. 6). The two illustrations of Santa Fe that were included in Emory's report on the Army of the West's campaign convey a similar perspective.

Ironically, although the fortification was essentially complete, on November 7, 1846, the artillery Kearny's forces had brought with them, or captured on the march to Santa Fe, was moved to the plaza. The movement of the artillery from Fort Marcy to the plaza underscores the impermanent nature of the fort. Although more complete than the first two forts constructed at Fort Union, Fort Marcy was never intended to be a permanent fortification (Harrison and Ivey 1993; James E. Ivey, personal communication 1995).

By the time he returned to Santa Fe in August 1847, Philip Gooch Ferguson, a soldier with the Third Regiment of Missouri Volunteers who had marched south with Doniphan, walked up to the fort, while he said was "built last year by the [Missouri] volunteers but [has] never been occupied," and saw on the slope just below the southwestern rampart "over three hundred [soldiers'] graves, all dug within eighteen months" (in Bieber 1936:317–318). Ferguson's description of the graveyard corroborates that of George Rutledge Gibson, another soldier with Kearny and Doniphan, who described it as located "on the hill near the fort, where all the

soldiers are interred, . . . almost immediately under the guns of Fort Marcy" (Gibson 1935:253), although other sources suggest that the guns had been moved to town by that time.

Historic Fort Marcy quickly deteriorated, offering children like Marian Sloan Russell a playground to indulge their fantasies as they hunted for exposed bones and climbed among the ruins (Russell 1954:48). So removed was the fort from the changing town that one bird's-eye view of the city simply omitted it and another map portrayed it peripherally.

In 1853, Col. Joseph K. F. Mansfield, on an inspection tour of Western forts, noted that Fort Marcy was "the only real fort in the Territory. . . . The troops do not occupy this fort but it can be occupied by the troops at short notice. It has the disadvantage of no water. . ." but, he continued, "The troops that occupy this fort live in the Public Buildings in Santa Fe: and as this is the seat of Government of the Territory seems indispensable to preserve order and sustain the Authorities in cases of domestic excitements. . . . I look upon this post as desirable and should not be abandoned." Mansfield also provided a detailed drawing of the fort in his report (Fig. 7). This remains the most detailed depiction other than Gilmer's plans and, with its representation of fourteen embrasures, helps to account for the disparity that occurs in accounts of the fort's armaments. Within five years, however, the fortification and blockhouse on Fort Marcy Hill had become less important than Fort Marcy Military Reservation in downtown Santa Fe.

What role, if any, Fort Marcy played in the capture of Santa Fe by Confederate forces in 1862 is unknown. Charles Bennett, deputy associate director of the Palace of the Governors and a military historian, has suggested that Confederate artillery may have been placed on the hill to be fired in salutes (personal communication, 1995). Interestingly, the wire twists of two friction primers were found in the 1995 test excavations. Friction primers, however, were not in common use by the U.S. artillery until shortly after the Mexican War (Charles Haecker, personal communication 1996).

According to Bennett, Special Orders No. 91, District of New Mexico, September 25, 1867, directed that the post in Santa Fe be abandoned. Although Fort Marcy Military Reservation would be reestablished in 1875, the earthen fort and blockhouse on the hill officially ceased to exist.

In 1880, however, L. B. Prince, one of the founders of the New Mexico Historical Society and territorial governor in the early 1890s, and W. T. Thornton acquired the property from Gaspar Ortiz y Alarid. Following a series of claims and court cases, by 1901 Prince and Thornton were able to file a quitclaim deed on the property (see Wozniak 1992:10, appended to this report). During this period, one final reference to the fort appears in a note about a $100 reward being offered for the capture of the arsonists who burned an observatory at Historic Fort Marcy to the ground in 1883 (Sheldon 1883, Territorial Archives of New Mexico [TANM], roll 22, frame 53; roll 100, frame 77).

ARCHAEOLOGICAL WORK ON AND AROUND HISTORIC FORT MARCY

More than 750 years prior to the construction of Fort Marcy, the hill on which the fort would be constructed was occupied by Puebloan peoples. Although Lt. Jeremy F. Gilmer never pondered the site's past uses in his letters, others did, noting the earth beneath the surface to be "more like an ash heap" where workers "continue to dig up human skeletons, which are scattered all over the hill" (Gibson 1935:260). Gibson, the Missouri Volunteer, further noted, "There is a tradition that the Indians and Spaniards fought a battle at this place, but I can learn nothing certain about it." In another instance, referring to a "great many coffins and bones," exhumations also noted by others, he stated, "It is said to be the American graveyard" (Gibson 1935:237; Hunter 1992:54).

What Gilmer had done was to construct the earthen fort from the remains of the earlier occupations of the hill. In 1989, David Snow reported on test excavations at 320 Kearny Avenue, which abuts Historic Fort Marcy to the north. Although Snow uncovered no architectural features in his tests adjacent to the fortification, he uncovered a surface which he explained "resulted from efforts to drag soils and fill (perhaps with a fresno) to level the surface of Ft. Marcy construction site, prior to construction of the intended earthworks" (1989:unpaginated).

Although construction of the fort redistributed much of the earlier site and an American graveyard used between 1821 and 1846, enough of the prehistoric site remained to catch the interest of Adolph F. Bandelier, who visited the site of Historic Fort Marcy on numerous occasions between 1880 and 1892 (Fig. 8). On March 22, 1882, Bandelier wrote in his journal:

> Went to Fort Marcy . . . found pottery, corrugated and painted black, and also chips of flint, but no obsidian. Still there is no doubt of a settlement left up there as Jac. [Jake] Gold, has, himself a collection of pottery from the same place. The pottery is ribbed rather than corrugated, but Gold has some corrugated too (Lange and Riley 1966:240).

Bandelier returned to the fort in July of 1882. On that occasion he noted,

> At the fort we found a great deal of pottery, all corrugated and indented smoky, grey and white and black and white, but no glossy [glaze] fragments. Evidently a small-house pueblo. On the *southeast side of the old fort a ring of stone seems to indicate foundations of a building similar to an estufa [kiva]. There is a depression, but it may be the result of contrast only. In general, any ruin up there must necessarily appear doubtful, on account of the remains of the old fort and its annexes*. Mr. Cole found a small arrowhead. . . (Lange and Riley 1966:338–339; emphasis added).

Bandelier's description of the stone-ringed depression southeast of the fortification is fascinating. Although no stones are in evidence on the surface today, perhaps this feature is the "anomalous

depression" noted by Acklen (1994), now believed to be the slurry pit Gilmer used to mix the material for the revetment. Bandelier's frequent use of the adjective "old" to describe Fort Marcy is equally curious because the fort was no more than thirty-six years old when he first saw it. Moreover the fort was not officially abandoned until 1867 (according to Charles Bennett at the Palace of the Governors), a mere fifteen years before Bandelier first came to Santa Fe. Is it possible that Fort Marcy was viewed as older than it was because it was obviously constructed of prehistoric remains? Or perhaps the fortification and blockhouse had been robbed of building materials, giving them an artificially old appearance.

Two years later, on July 3, 1884, Bandelier noted that E. L. Cole, an instructor in mathematics and English literature at the University of New Mexico at Santa Fe, was collecting prehistoric material from the sites of Arroyo Hondo, San Marcos, Peñas Negras, and Fort Marcy. According to Bandelier, Cole had a "fine collection of bone implements from Fort Marcy" (Lange and Riley 1970:332–333).

In 1910 Edgar Lee Hewett, director of the Archaeological Institute of America at Santa Fe, published an article in the *New Mexican* entitled, "Prehistoric Santa Fe: Some Light on a Question of Intense Local Interest":

> But the evidences at hand justify the belief that if one could have stood upon the spot where the City now stands, looking east from the site of the Church of Our Lady of Guadalupe, 500 years ago, there would have been on what we call Fort Marcy Hill, an Indian town of considerable size, consisting of one large terraced pueblo and one or more smaller buildings near by, [with] a kiva or sanctuary of the circular subterranean type on the bench half way down the hill side . . . (Snow 1992:219).

When Hewett saw Fort Marcy Hill, the only mounds that would have indicated occupation of the site were the remains of the walls and blockhouse of Fort Marcy itself (Figs. 9 and 10). While there was evidence of prehistoric use of the summit and slope of Fort Marcy Hill, those finds indicated a far less grandiose utilization than Hewett's terraced pueblo and associated kiva (Wozniak 1992:1).

In 1980 Richard W. Lang surveyed a portion of the Prince Estate adjacent to Fort Marcy. Working under the auspices of the School of American Research, Lang performed a survey of the area to look for sites and focused on those areas where site probability was highest, or where residential development was planned (Lang 1980a:5–6). Lang recorded eight prehistoric sites and one historical site. Two of the sites appear to be contemporaneous with the prehistoric occupation of Fort Marcy Hill. Lang (1980b) performed additional work in the area of Arroyo de la Piedra and Arroyo Saiz. At that time he recorded four additional sites, consisting of two lithic artifact scatters and two possible hearths.

In 1983, Regge Wiseman investigated the KP site, a Late Developmental period pitstructure located west of the Historic Fort Marcy project area. During the construction of condominiums, much of the feature had been destroyed. Nevertheless, Wiseman's excavations (reported in 1989) produced a wealth of material culture and information concerning the period. Since the predominant ceramic type recovered from the site was Kwahe'e Black-on-white, followed by

Chaco II, Red Mesa, and Escavada Black-on-white, it appears (along with Lang's sites) to be contemporaneous with the prehistoric occupation of Fort Marcy Hill.

In 1993 Southwest Archaeological Consultants surveyed thirty-five acres near Fort Marcy Hill for the Charles Diker Estate (Viklund 1994). Two sites previously identified by Lang were tested since they were located within the Historic Downtown District (Anschuetz 1995). Testing indicated that the sites had dual components: two pitstructures and possible jacal surface structures which apparently date to the transition between the Middle and Late Developmental periods (Anschuetz 1995) and might represent two different occupations of the area.

When these findings are compared with data from D. H. Snow's 1989 survey and testing at 320 Kearny Avenue, the picture that emerges is one of extensive Middle and Late Developmental and Early Coalition occupation on the hills overlooking what is now downtown Santa Fe. These Puebloan people cultivated the floodplain beneath the hill on which they lived.

In 1994, the Archaeology Review Committee contracted with Mariah Associates to perform limited auger and shovel tests. Methods and findings are reported in the document appended to this publication (Acklen 1994).

Limited text excavations under the direction of Susan Swan were conducted at Historic Fort Marcy between June 19 and 30, 1995. Ms. Swan was assisted in the excavations by Antonio Montaño, Twyla Quintana, Michael Withnall, and Diane Fitrakis. In accordance with the research design, four areas were selected for archaeological testing in 1995 (Fig. 11): the magazine (in actuality, the banquette and platform), the moat and rampart/revetment, the blockhouse, and the depression. A backhoe supplied by the city was used to remove overburden in trenches in the first two areas (labeled Trenches B and C). All subsequent excavations in those features, and the tests labeled Trench A and Test Pit D, were done by hand. After the tests had been completed, the excavations were backfilled to their original contours. Prior to backfilling, Supac, a non-woven polypropylene manufactured by Philips Petroleum, was placed on the bottom of each test unit.

Field reports on file at the City Planning Division state that "a benchmark on the western edge of the site was designated the primary datum. Orientations, distances, and elevations of subsidiary datum points were measured in relationship to the primary datum point which was used to measure provenience in three dimensions." In addition, "all soil was screened through 1/4 mesh; all artifacts were collected and placed in paper bags labelled as to site, feature, depth below horizontal recording levels and date collected; plan views were made of each feature, grid and level, recording information about cultural and natural discoveries. The principal investigator made extensive field notes concerning the progress of the work and findings. Finally, a photographic record of the excavations was made, including black and white photographs, color slides and supporting documentation."

Some of the materials provided to Cordelia Snow for preparation of the report on the third phase of work did not meet the standards described above; however, they have contributed information useful for completing this project. In her report submitted to the Archaeology Review Committee in 1995, all of the artifacts recovered from a single trench or test pit were treated as a single assemblage.

All materials, field notes, maps, photographs, and slides from the 1995 test excavations at Fort Marcy will be curated at ARMS. Further, all cultural remains have been prepared in accordance with the Cultural Properties Review Committee's Guidelines for Curation of Artifactual Material and submitted to the Archaeological Repository of the Museum of New Mexico for curation.

RESEARCH QUESTIONS

The 1995 archaeological and historical investigations at Historic Fort Marcy were the third phase of a project designed to provide the City of Santa Fe with historical information to serve as a basis for a master plan to guide public use and interpretation of the fort. The approved research design for the 1995 test excavations (appended to this report) was developed through a series of questions and hypotheses suggested as the result of Wozniak's (1992) and Acklen's (1994) earlier work.

Although early archaeologists such as Bandelier had visited Fort Marcy on numerous occasions, they were primarily interested in the prehistoric materials and generally ignored the earthen fort and blockhouse. And, while Hewett and Twitchell agreed that there had been a large terraced pueblo on the hill, they provided no concrete evidence for that supposition, nor did they provide information concerning Fort Marcy. More recent archaeological research has shown that the area around the hill was occupied by Puebloan people during the Middle to Late Developmental and Early Coalition periods, but because the fort was outside those specific project boundaries, it could not be investigated at the time.

However, as Acklen (1994:35) noted, "one of the most startling results of the [1994] study is the total absence of evidence for any historic occupation of Fort Marcy Hill contemporaneous with the fort." In the letters and reports Gilmer was often unclear about the materials he used to build the fort. Indeed, there are conflicting reports of what was actually built. As a result, the Archaeology Review Committee decided that additional limited test excavations were needed at the fort to determine if sufficient evidence remained to provide for more detailed management and historical interpretation of the site.

Our archaeological and archival work at Fort Marcy focused on seven research questions:

1. Can any undisturbed deposits be found that illustrate the construction techniques and placement of the dry moat, rampart, and revetment of the fort?
2. Is Mansfield's plan of the blockhouse and its adobe construction accurate?
3. Is the blockhouse the same building identified as an observatory that burned in 1883?
4. Is the anomalous depression the cistern mentioned by Marian Russell, or perhaps a kiva?
5. Was the magazine an adobe-lined subterranean structure?
6. Were the gun emplacements made of rammed earth?
7. What was the actual role of Fort Marcy in the transition of New Mexico from a Mexican to a United States territory?

RESULTS OF THE ARCHAEOLOGICAL TESTS

After the 1995 excavations were completed, Cordelia Snow prepared a comprehensive report on the archaeological and historical findings. The following is a summary of those findings.

TRENCH A

Trench A consisted of three 1 by 1 m tests in a line oriented roughly north to south. The surface of the test sloped from south to north. At the time of excavation the surface was covered by mown native grasses and recent trash. Prior to excavation, all of the surface materials were collected. For the most part, those materials consisted of an undeterminable number of smashed brown, clear, and green beer and wine bottles, bits of aluminum foil, and candy wrappers. Although examined briefly, recent trash was not included in further analyses.

As the excavation proceeded, at least two badly eroded adobe bricks were uncovered in the north end of the trench. The bricks lay side by side on a more or less east-west axis. Rammed earth abutted the bricks to the south and appeared as a hard, dark gray, slurry-like material which contained prehistoric lithic debris, sherds, and occasional animal bones. Whether there was a similar facing of adobe brick south of and parallel to the bricks at the north end of the test, or whether the rammed earth mixture continued to the end of banquette, is unknown.

The adobe bricks appeared to provide a facing for the slurry of highly organic, prehistoric midden deposits, which appear to have been roughly sorted by military personnel at the time of construction. After sorting, the midden deposits were mixed with water. Eric Blinman (Office of Archaeological Studies, Museum of New Mexico, personal communication 1995) suggested that the midden deposits were probably mixed with water in place, or close to where they were originally deposited.

The adobe bricks uncovered in Trench A, as with all of the adobe bricks uncovered during the 1995 test excavations, were not discolored by the ashy midden deposits found throughout the fortification. They had obviously been made off-site, but where is unknown. However, since the mortar observed between the bricks was the identical dark gray color of the midden deposits at the site, it was made on-site.

David H. Snow of Cross Cultural Research Systems analyzed the ceramics recovered from the 1995 test excavations at Fort Marcy. Because most of the sherds were recovered from the rammed earth slurry—completely out of context from their original prehistoric deposition—no detailed analyses were considered. Even a simple typing of ceramics can provide both chronological and functional information, however. For example, the decorations on the earliest black-and-white vessels were made with **mineral paint** on a white background. As discussed in the Cultural History section, common mineral-painted types include Red Mesa Black-on-white. Later, potters made their designs with **carbon paint** on vessel types such as Santa Fe Black-on-white. Still later, potters began to use more than one color of paint (polychrome), added mica to the clay (**micaceous**), or made a shiny **glaze paint** by crushing rocks containing lead.

Of the 217 sherds recovered from Trench A, 198 are prehistoric (91.2%). As at two recently excavated sites nearby (Anschuetz 1995), plain gray utility ware is the predominant ceramic type. These vessels (whether bowls or jars) are generally considered to be cooking or storage pots. Prehistoric decorated wares (generally bowls, plates, and other forms used for serving) number only 28 (8.8%). Although the majority of the decorated wares consist of Kwahe'e Black-on-white and Red Mesa style sherds from the Middle to Late Developmental period (A.D. 900–1100), the presence of Santa Fe Black-on-white (dating from the Coalition period, A.D. 1200-1325) suggests that there was more than one occupation of the hill.

The most common historical ceramic type from Trench A is Powhoge Polychrome, which dates to the nineteenth century. Both bowls and jars are represented. Two sherds from a red-slipped Tewa bowl and one sherd from a Tewa Red jar were also recovered. One glaze body sherd was tentatively identified as being from a Glaze E or F vessel, thereby made well before construction of the fort.

Finally, one sherd of Orangeline Polychrome majolica (Gerald 1968:36) was recovered within the first 20 cm in Trench A. This nineteenth-century ware was produced in Mexico, and the sherd is the only piece of majolica known to have been recovered from Fort Marcy. Like the Powhoge Polychrome and Tewa Red sherds, it could conceivably date to the same period as the construction of the fort.

Table 1. Ceramics from Trench A

Ceramic Type	Number
Prehistoric Utility Sherds	
Plain gray	121
Clapboard	22
Indented Corrugated	21
Basket Impressed	2
unidentified (neck or rim)	4
Subtotal	170
Prehistoric Decorated Sherds	
Red Mesa Black-on-white	4
Kwahe'e Black-on-white	11
Santa Fe Black-on-white	2
unidentified whiteware	11
Subtotal	28

James L. Moore of the Office of Archaeological Studies provided a brief analysis of the lithic assemblage from Fort Marcy. Overall, Moore noted that the lithic assemblage recovered from the 1995 test excavations at Fort Marcy "seems to represent part of an Anasazi chipped stone

assemblage." No artifacts in the assemblage could be positively identified as *chispas* (**strike-a-lights**), gunflints, or any other artifact that might date to the historical occupation of the hill.

Because the lithic artifacts from Trench A were found within the rammed earth layers of the banquette/platform, Moore was questioned about the possibility of damage during redeposition. Moore notes,

> Though I could not quantify all of it, there seemed to be quite a bit of postdepositional damage to the assemblage as a whole. However, it was not possible to determine whether this was related to natural processes or later treatment when [the deposits containing the artifacts were] used to build the fort (Moore 1995:11).

One of the pieces of glass that may have been recovered from below the surface is the base of a heavily patinated, clear, square medicine bottle, embossed with the letters "D" or "O", "I", and the number "52," and may date to the early part of the twentieth century. Much of the glass from Fort Marcy was patinated—even recent beer and wine bottle fragments marked with "no deposit/no return". The high organic content of the soils used in the construction of the fortification probably hastened the patination of glass deposited on the site.

The metal objects recovered from the trench are among the most interesting artifacts recovered during the 1995 test excavations. Two of them could be associated with the construction and use of Fort Marcy. These items are two wire twists from cannon friction primers. Friction primers, brass tubes filled with fulminate of mercury, had a wire twist or loop made of steel. The top of the wire twist was attached to a lanyard, which was then pulled to ignite the charge in the cannon (Gibbon 1971:365; Herskovitz 1978:52–53). Each wire twist is approximately 3 cm long. These simple but ingenious devices were invented around 1841 and were in use worldwide by 1848 (Peterson 1969:116), although they may not have made their way into regular use by the U.S. military until later (Charles Haecker, personal communication 1996).

In addition to the primers, two pieces of ammunition were also recovered from Trench A, a spent .22 cartridge and a .32 cal. bullet. According to Charles Haecker (personal communication, 1996), .22 cartridges have been manufactured since 1885 and were quite common by the late 1880s.

Another metal artifact recovered from Trench A is so obviously out of place that it verges on the anachronistic—that is, a two mill Kansas sales tax token. Such tokens were produced in Kansas between 1937 and 1939 to fund the Kansas Social Security system (Malehorn and Davenport 1993:103–109). Since Governor Walter A. Huxman ordered them to be made, they were known as "Huxies." The token recovered from Trench A is 15 mm in diameter and made from aluminum. According to Malehorn and Davenport (1993:104), these tokens were produced beginning in the summer of 1937.

Recent pop tops, three six- or eight-penny wire nails (Gillio, Levine, and Scott 1980:5), a fragment of badly rusted tin with a rolled or "finished" rim, and one smashed sanitary-seal can were also recovered from Trench A.

A piece of wood 14 cm in length, 3 cm in width, and 1 cm thick was recovered from the middle portion of the trench. The wood is slightly curved, but whether the curve was purposeful or the result of differential drying is unknown. The purpose of the wood is unknown. Finally, a piece of a leather strap was collected from the surface an unknown distance from Trench A.

TRENCH B

Trench B was excavated to provide a cross section of the dry moat and rampart/revetment. Originally planned to be located some meters north of the present entrance into the fortification, Trench B was relocated to the south to make it safer for the backhoe to remove the overburden.

Two items of recent manufacture collected below the surface, a miniature bottle with screw top and a tape (for use in a tape deck), suggest that erosional processes continue at a rapid rate, particularly on the east-facing slope of the rampart.

Trench B was approximately 6 m in length. The west-facing and lowest levels of the moat were excavated into what appears to be previously unmodified, cream-colored, highly friable, siltlike deposits. When prehistoric midden deposits were encountered in the east-facing portions of the moat and embankment, backhoe work ceased. The predominant fill in this section consisted of fine, ashy, highly organic, dark gray to almost black midden deposits laden with complete and fragmentary corncobs, lithic artifacts, and sherds, most of which date to the Late Developmental–Early Coalition periods. The fill was so ashy and fine that one could understand Gibson's comment of nearly 150 years before: at "a depth of seven or eight feet the earth seems never to have been wet, and is more like an ash heap than anything else" (Gibson 1935:260). One cannot help but speculate that if Fort Marcy had ever been bombarded, it would have disappeared in puffs of dust.

Slightly fewer sherds were recovered from Trench B than from Trench A. The sherds include both prehistoric and historical ceramic types. The latter include five sherds of Tewa buff to tan and a sherd each of unidentified **micaceous** and a type with a Powhoge-like paste but no decoration. As in Trench A, however, sherds from the prehistoric occupation of Fort Marcy Hill predominate.

As in Trench A, Red Mesa style and Kwahe'e Black-on-white are the predominant prehistoric decorated ceramic types. While only four sherds of Santa Fe Black-on-white were found in Trench B, they support the suggestion that occupation of Fort Marcy Hill extended into the Early Coalition period (see below).

As with the ceramics, fewer lithic artifacts were recovered from Trench B than from Trench A. The paucity of lithic material in Trench B suggests that the production of the slurries needed for rammed earth construction produced higher concentrations of cultural debris in those areas. At the same time, however, Moore noted that the preponderance of cherts recovered from this and other test excavations may have resulted from differential recovery of artifacts in the screened material.

Table 2. Ceramics from Trench B

Ceramic Type	Number
Prehistoric Utility Sherds	
Plain gray	94
Clapboard	14
Rio Grande Corrugated	1
unidentified corrugated	7
Basket Impressed	5
unidentified (neck or rim)	21
Sapawe Micaceous Washboard or Tesuque Smeared Indented	1
Subtotal	143
Prehistoric Decorated Sherds	
Red Mesa Black-on-white	5
Kwahe'e Black-on-white	29
Santa Fe Black-on-white	4
unidentified prehistoric glaze (body sherd)	1
Subtotal	39

Mollie Toll of the Office of Archaeological Studies, Museum of New Mexico, analyzed the corncobs. Her analysis is appended to this report. She notes that the characteristics of the Fort Marcy corn (for instance, the preponderance of 12-rowed ears and the slender cobs) point solidly to late prehistoric types and away from attributes that mark the appearance of Spanish introductions from Mexico (for instance, lack of significant numbers of 14-, 16-, 18-rowed cobs, and lack of broad, flat cupules). There are some interesting differences between cobs from the lower and upper levels of deposits. Corn from the lower levels is more eroded and fragmentary, which may explain some of the smaller and more variable dimensions. Toll says that "Theoretically, only cob diameter should be affected by degree of erosion, but I suspect not all of the variability between the two stratigraphic zones is real genetic differentiation. This patterning would be of great interest in relation to a data base of Santa Fe area *Zea mays* (corn) over a broad range of time, if such information only existed."

The only glass items recovered from Trench B were a modern miniature bottle and fragments of recent beer and wine bottles. A spent .45 caliber bullet was also recovered. According to Charles Haecker (personal communication 1996), .45s were introduced in the 1870s. Given the weight of the lead bullet, it is not surprising that it sank in the loose, ashy deposits of the trench.

TRENCH C

In order to protect the northeastern flank of the fort, the only access not marked by the sheer drop of the bluff, Gilmer planned a "defensive building, 50 ft. square to furnish quarters for one company [no more than 100 men] and its officers and to contain a store room" (Gilmer to

Welcker, October 9, 1846). According to Gilmer's plans, the walls of the blockhouse were to have been 6 ft thick. Trench C was excavated into the northeast corner of this feature in order to determine if the blockhouse had been constructed as shown in Mansfield's plan of 1853, and to determine if the blockhouse had been burned. After the overburden had been removed by backhoe, the balance of excavation was undertaken using hand tools.

At an approximate depth of 73 cm, the top of an adobe brick wall was uncovered (Fig. 12). The wall, constructed of adobe bricks imported to the site (based on their color), was slightly more than one meter wide. The dark gray mortar between the bricks had obviously been made on site because it was identical in color and consistency to that observed in the banquette/platform. Rubble fill was noted on the exterior of the wall, and adobe slump on the interior. A thin line of what may have been white plaster was noted in the interior.

Since the blockhouse was constructed of adobe bricks made elsewhere, it is not surprising that fewer prehistoric artifacts were recovered from Trench C than from the other trenches. Presumably the few ceramics and lithic artifacts that were recovered had been included in the mortar, which was made on-site.

Twelve sherds were recovered from Trench C. Prehistoric utility wares consist of eight plain gray sherds, one clapboard sherd, and one unidentified neck or rim sherd. The only prehistoric decorated sherds are two fragments of Kwahe'e Black-on-white. The only historical type is one sherd from a Kapo Black jar. Since Kapo Black is a long-lived ceramic type, it is impossible to determine whether the vessel from which the sherd came was in use at the time the blockhouse was constructed.

TEST PIT D

Identified as an "anomalous depression" by Acklen (1994), and subsequently as a cistern in the 1995 research design, this feature is most likely an area used by Gilmer to mix the slurry needed to provide the rammed earth and mortar for construction of Fort Marcy. Located south of the blockhouse, the area appears as a more or less circular depression. The slurry pit has been divided in half by construction of a walkway from the parking circle to the Cross of the Martyrs. The proximity of this feature to the blockhouse suggests that it might be the area used to mix the mortar for construction of that building.

The hard, dark gray fill of Test Pit D was identical in color to the rammed earth used in the construction of the banquette/platform, and to the mortar in the blockhouse. The fill in the slurry pit consisted almost entirely of prehistoric cultural remains. In auger test 6 made the previous year, Acklen (1994:22) documented "a dense clay layer containing midden fill to a depth of 90 cm below ground surface in this area."

At first glance, the artifact count appears high relative to the other three assemblages (given the fact that this test measured only 1 by 1 m). Two factors may account for this difference: the test pit was located near the center of the depression, which has been accumulating deposits washed in from the surrounding area for nearly 150 years, and in any case, artifacts seem to be concentrated in the slurries used for rammed earth, suggesting that they might have been

purposefully included in the slurry pit as "temper" for the mortar mixed there. Because the test was made more or less in the center of the depression, it cannot be determined if Gilmer reused a feature (such as a kiva, given the size of the depression) from the prehistoric occupation of the hill.

What appears to be a disproportionally high proportion of utility wares in this test pit (90.7% of the prehistoric assemblage; Table 3) is almost identical to that recorded from test excavations at two nearby sites (Anschuetz 1995). In those tests, utility wares made up 90.4% of all ceramics recovered.

Table 3. Ceramics from Test Pit D

Ceramic Type	Number
Prehistoric Utility Sherds	
Plain gray	109
Clapboard	7
Indented Corrugated	18
Basket Impressed	1
unidentified (neck or rim)	2
Subtotal	137
Prehistoric Decorated Sherds	
Red Mesa Black-on-white	6
Kwahe'e Black-on-white	2
Santa Fe Black-on-white	4
unidentified white-slipped	2
Subtotal	14
Historical Sherds	
white ironstone	3
fine yellowware	2

The only historical ceramics are three sherds of badly spalled white ironstone and two tiny sherds of a fine yellowware. The ironstone could not be further identified. The sherds of yellowware are much thinner than the ubiquitous yellow mixing bowl sherds recovered from nineteenth- and twentieth-century sites. One of the sherds has a design embossed in white. The sherds, which are from the same vessel, are too small for further identification.

According to James L. Moore (personal communication, 1995; also see appendix), the assemblage from Test Pit D appears to have sustained more postdepositional damage than the assemblages from the other excavations. Postdepositional damage could occur when midden deposits were mixed for slurry or mortar.

The only glass recovered from Test Pit D were fragments of recent brown beer bottles. No metal artifacts were recovered.

FAUNAL REMAINS

The faunal remains provide one of the few indications of historical occupation of Fort Marcy Hill. Linda Mick-O'Hara analyzed the animal bones recovered from the archaeological excavations at Fort Marcy. Her report is included as an appendix.

Excavations at Fort Marcy resulted in the recovery of 92 bone elements and fragments. The assemblage is dominated by medium and large mammal remains, but bones from two small wild species provide evidence for the use of small mammals by the occupants of Fort Marcy Hill. The single prairie dog and the six desert cottontail bones exhibit evidence of burning and were probably part of the diet from the prehistoric component. Carnivore tooth marks on two of the cottontail elements suggest that the deposits were scavenged by dogs or coyotes.

A single rib fragment indicates the presence of cattle. Sheep/goat and deer were also used. The deer remains are unburned, and all exhibit impact fractures or evidence of longitudinal splitting. This pattern is commonly seen in prehistoric sites and suggests that deer, along with the small mammals, was part of the prehistoric diet. This inference is supported by the presence of four bone awls, two of which are modified deer metapodials that had been grooved and split longitudinally. The tips of these awls were broken, but the other two had fine points typical of tools used for making baskets and working with animal skins.

The sheep/goat remains and the single scapula that could be identified as domestic sheep exhibited evidence of impact fractures and splitting from axe butchering. In many parts of New Mexico, sheep were axe butchered even late in the territorial period, probably because they are relatively small and do not require a saw for ease in processing. Most of the remains assigned to sheep/goat were burned brown or black, which is consistent with roasting and the disposal of bone fragments into or near cooking areas.

Although the historical remains cannot be positively associated with the construction of the fort, the following quote from George Rutledge Gibson's journal gives some idea of the soldiers' diet:

> We have pies, both grape and custard, and Walter also gave us soup and boiled and baked mutton for dinner. . . . We find it much better to buy the sheep alive and have it slaughtered, as we are then sure not to eat goat's meat, which we have been buying in [the] market for a fortnight as sheep and found it not so good (Gibson 1935:241).

In summary, the faunal assemblage from Fort Marcy appears to be a mixed assemblage. The prehistoric component probably contributed the deer and small mammal remains along with the four bone awls. The historical assemblage consists of the cattle and sheep/goat remains.

DISCUSSION OF FINDINGS

Archaeological and archival work at Fort Marcy focused on the seven research questions presented in the previous section. This section compares the answers provided by the two different sources of information, archaeological testing and historical documents.

1. Position and construction of moat, rampart, and revetment

The first step in constructing the six-pointed "star" fort on Fort Marcy Hill would have been for the troops to level the hilltop using **fresnos.** Eager to prove himself to his commanding officer, Lt. Jeremy Gilmer must have been dismayed by the uneven character of the land upon which he was ordered to build the fort. Some areas may have contained mounds consisting of old trash dumps or middens left by the prehistoric occupants of the hill (what George R. Gibson referred to at the time as an ash heap); others even contained human remains.

After the site was rougly level, Gilmer's troops excavated the moat and piled the deposits on one side to form the parapet. Judging from the appearance of the fill in the 1995 excavation of Trench B, little if any of the prehistoric material was sorted. Since no human remains were found, perhaps the soldiers did remove those from the dirt to be used in construction.

In a letter to Colonel Totten (dated September 10, 1846), Gilmer said he planned to construct the revetment (the facing of the parapet) of adobe bricks. Although the upper levels of the west end of Trench B contained evidence of three adobe bricks, the absence of melted or slumped adobe in the portion of the moat exposed in the trench indicates that Gilmer did not follow through with his original plans. Acklen (1994:21) documents a similar lack of adobe in his tests of the rampart walls.

In fact, Gilmer would have needed thousands of bricks to face the entire parapet with adobe, and the troops would have had to haul all of those bricks up the hill to the site. It would have been equally difficult for Gilmer to cover the parapet with puddled adobe because the adobe plaster has to be mixed on site.

As a result, Gilmer probably ordered the troops to haul water up the hill and dampen the redeposited midden soils of the parapet every ten or twelve inches and then walk on them to create ten- to twelve-inch-thick layers extending the height of the revetment. If Gilmer had not used this "rammed earth" technique, the extremely fine and ashy redeposited midden soils would have eroded rapidly in the high winds and heavy summer rains characteristic of Santa Fe.

Similar expedient methods were used in the first two forts at Fort Union. In fact, by 1862 the parapet at Second Fort was reported to be washing away because it had not been surfaced with sod or made of rammed earth (Harrison and Ivey 1993:47).

The bottom and east end of Trench B consisted of previously unmodified, cream-colored, highly friable silt deposits similar to those recorded in test excavations at two nearby sites (Lonyta Viklund, Southwestern Archaeological Consultants, personal communication 1995). However,

nothing was observed in either the north or south profiles of the trench that could be identified as the original ground surface where the troops began their excavations for the moat.

2 and 3. Plan and construction of blockhouse, and evidence of burning

Gilmer initially planned to build the blockhouse of wood; in fact, Lieutenant Abert (1848:754) mentioned the use of "pine logs one foot square." But the lack of a sawmill forced Gilmer to change his mind. Auger tests in the area (Acklen 1994:19) supported Gilmer's subsequent statement that he was building the blockhouse of "sun-dried brick."

The 1995 test excavations at Trench C uncovered a 3-ft-wide wall constructed of adobe bricks. The light-colored bricks had been imported to the site and were laid with a dark gray mortar made on site (probably in the slurry pit encountered in Test Pit D). Adobe slump observed in the interior of the blockhouse may have been the remains of an eighteen-inch-wide parapet which according to Gilmer stood six feet above the roof of the structure. Since none of the adobe was discolored, as it would have been if it had burned, and since the only charcoal in the trench came from the midden deposits used to make mortar (and not from charred wood), it appears that the blockhouse was not the observatory that burned in 1883.

The absence of wood suggests that as the fort deteriorated, materials were removed for use elsewhere. Or, perhaps Gilmer never really completed the blockhouse (see Wilson 1989:109). Nevertheless, the test excavations do not provide sufficient information to determine if the blockhouse had been constructed according to Mansfield's plan.

4. The depression

In the mid-1850s, while playing at Fort Marcy, Marian Russell fell into what she later called a cistern. Since there was no source of water at the fort, it makes perfect sense that someone would have built a cistern for collecting and storing water. Nearly thirty years after Russell and her childhood friends played at Fort Marcy, Bandelier noted a rock-ringed circular depression southeast of the earthen fort (Lange and Riley 1966:338–339). At the time he was undecided whether the depression was prehistoric or dated from construction of the fort.

Test Pit D was excavated inside the feature, north of the walkway to The Cross of the Martyrs. Instead of being a cistern, the feature was apparently used to mix prehistoric midden deposits with water to make a slurry for use in construction of the fort. Previous auger tests had documented "a dense clay containing midden fill to a depth of 90 cm" on the interior of the feature, while another test placed just outside the depression "documented a sterile, calcareous clayey silt" with no artifacts (Acklen 1994:22). Fill containing midden deposits would not be expected in a cistern; however, such fill would be compatible with operation of a slurry pit.

Because the test pit did not include the wall of the depression, we cannot determine whether the slurry pit is also a prehistoric architectural feature, such as a kiva or pitstructure. However, the percentages of undecorated utility wares (90.7%) and decorated ceramics (9.3%) recovered from the test pit are very similar to those found at two other nearby prehistoric sites and suggest that the deposits are more or less in place (Eric Blinman, personal communication 1995). Use of the feature as a slurry pit is further substantiated by Moore's analysis of the lithic assemblage, which

indicated more postdepositional damage to the artifacts in this feature than elsewhere. It is possible that the damage was sustained as the result of mixing slurry and mortar.

5. Construction of the magazine

The approximate location of the magazine was estimated based upon the topographic and overlay maps provided by Acklen (1994), in addition to Gilmer's and Mansfield's drawings. Trench A was placed in that location to determine if the magazine was an adobe-lined, underground feature. However, the magazine was not encountered in Trench A. If a mound located to the east of Trench A is in fact the remains of the magazine, then, judging from the height of the mound, that feature was semisubterranean. Although the placement of the trench did not result in the identification of the magazine, the test allowed examination of the construction methods of the banquette (the platform for gun emplacements).

6. Construction of the gun emplacements

Excavation of Trench A revealed that the gun emplacements were in fact made of rammed earth. The only unusual finding was that the rammed earth was made of midden deposits from the Middle to Late Developmental–Early Coalition period occupation of the hill. As noted above, Blinman has suggested that the midden deposits were probably more or less in place at the time the gun emplacements were prepared. When mixed with water that had been hauled up the hill, the deposits formed a hard, dark gray surface liberally "tempered," not with straw, as is typical, but with sherds, lithic debris, and occasional fragments of faunal remains. Compaction of the slurry was undoubtedly achieved simply by walking on it. Although not apparent in the test excavation, it is more than likely that the rammed earth was built up in levels in accordance with Mahan's (1836) instructions.

7. The role of Historic Fort Marcy

In terms of the archaeological tests (from both the 1994 and 1995 field seasons), there is surprisingly little evidence of the historical use of Fort Marcy Hill (other than modern trash and the features associated with the park). A few sherds and pieces of metal were found that could date to the nineteenth century, although most of the historical ceramic types identified in the assemblages had been developed in the eighteenth century. The cattle and sheep/goat bones definitely postdate the arrival of Europeans but may represent meals that were eaten anytime between the 1600s and the early 1900s. Even the recovery of the two wire twists for the friction primers is difficult to interpret because according to the records the artillery was moved to the plaza in early November 1846, before the fort was completed. Even though we know from the documents that Fort Marcy was never garrisoned, it surely played a symbolic role in the history of Santa Fe. This aspect of the research is discussed in the conclusions and by Kammer in the appendix.

CONCLUSIONS

Located on a promontory overlooking Santa Fe, Historic Fort Marcy was the first and only fort constructed in New Mexico during the Mexican-American War. Built under the direction of Lt. Jeremy F. Gilmer, the fort was constructed of the remains of a Puebloan settlement. The first U.S. fort in what became the Territory of New Mexico, Fort Marcy was symbolic of Manifest Destiny, although it was never garrisoned and had been abandoned by 1867.

As an engineer who was educated and later taught at West Point, Lieutenant Gilmer was clearly aware of the fact that a permanent fortification could not be constructed without a reliable supply of water nearby. The fact that there was no water on Fort Marcy Hill ensured that the earthen fort and blockhouse built there could never be anything other than temporary fortifications. From the start, Gilmer had been forced to compensate for difficult site conditions in every phase of construction in order to produce what appeared to be formidable, defensible fort. Although Gilmer continued to work on Fort Marcy through the spring of 1847, removal of the artillery from the hill to the plaza in November 1846 was tacit acknowledgment that the fort was a "paper tiger," symbolic only of the capture of New Mexico as part of the westward fulfillment of Manifest Destiny.

Even though nineteen of twenty-three auger tests dug during the second phase of research had been excavated into midden fill (Acklen 1994:23), no one associated with the 1995 project realized the extent of Gilmer's redistribution of the prehistoric occupation of the hill. For this reason, the questions asked in the research design were limited to the study of Fort Marcy, its construction and subsequent deterioration. However, because most of the material remains recovered in 1995 date to the prehistoric occupation of the hill, it is possible to make some inferences regarding previous use of the location.

Fort Marcy Hill was apparently occupied by Puebloan people during the Middle to Late Developmental and possibly Early Coalition periods, between A.D. 1000 and 1250. The 1995 test excavations uncovered no evidence of prehistoric architecture. In fact, the same lack of water that hampered subsequent construction and manning of the fort suggests that where Edgar Lee Hewett and Ralph Emerson Twitchell had pictured "one large terraced pueblo and one or more smaller buildings nearby," in reality the components would probably have been pitstructures with contiguous surface rooms constructed of jacal.

The artifacts do provide some information about the inhabitants. For example, burned prairie dog and rabbit bones indicate that the people ate small mammals as well as larger animals such as deer. The four pointed tools made of deer bones are generally used for making baskets or piercing hides, typically women's occupations. The chipped stone appears to be made of unusually high frequencies of one particular type of material (chert), and it shows extensive postdepositional damage, but otherwise it is a typical Puebloan assemblage. The presence of both mineral-painted and carbon-painted sherds is strong evidence for at least two separate occupations, as these types of pottery seldom occur in the same assemblage. And even the corncobs seem to reflect two different periods, although the difference in size could instead be an indication of how deeply the cobs were buried.

Water was also a limiting factor in the use of the hill during the Spanish colonial and Mexican periods. The hill had originally been part of the ejidos or commons belonging to the villa. Useless for cultivation because it could not be irrigated, the area was used for grazing or for collecting wood. Later part of the hill was set aside for use as a cemetery by non-Catholics.

Throughout the early twentieth century, efforts at tailoring Santa Fe's history generally ignored Fort Marcy. Former governor Prince set aside some of his land for a park, and the city planned some improvements on the hill (Fig. 13). Otherwise, this symbol of the American conquest did not fit in the city's romantic vision of its past.

In the late 1950s and early 1960s, historians began to reexamine Fort Marcy. Over the next few years numerous local historians and architects voiced their support for improving the public interpretation of the site (Fig. 14). The suggestions ranged from partial excavation to a complete restoration of the fort, but all agreed that the site was important and should no longer be ignored. When the heirs of L. B. Prince offered the site to the city with the provision that its past be interpreted, the *New Mexican* supported the idea, beginning and ending its editorial with the question, "What are we waiting for?" (*New Mexican,* August 14, 1963).

More than thirty years later, the City of Santa Fe may be in a better position to answer that question. The city has used its resources to complete a three-phase archaeological and historical investigation of Fort Marcy. This report has attempted to broaden the perspective from which Fort Marcy may be viewed. The arguments already offered by Bloom, Utley, and Wilson convey the importance of the fort to an understanding of the Mexican-American War, American expansionism, and a military dimension of the Santa Fe Trail. The additional information gained by this project offers an opportunity to revisit Fort Marcy and to see it from a broader, perhaps more insightful, viewpoint.

Because of the limited nature of the test excavations, Historic Fort Marcy remains eligible for the State Register of Cultural Properties and the National Register of Historic Places.

GLOSSARY

auger test—a method of determining the presence of subsurface deposits using an auger
banquette—bench or gunners' platform inside the parapet on which the soldiers stand
blockhouse—officers' and soldiers' living quarters
carbon paint—made from plant dyes
casas reales—literally, royal houses; government buildings
chamisa (or chamizo)—sagebrush
cienega—marsh or bog
ejido—common land set aside for general use of the townspeople or land grant recipients, often for firewood or building material
estufa—archaic word for **kiva**, based on Spanish word for **stove**
ethnobotanical analysis—study of plant remains from archaeological sites and how they may have been used by previous inhabitants
faunal remains—primarily animal bones but could include teeth, antlers, and other body parts
feature—an archaeological term for any nonportable evidence of human occupation, for example, a hearth or a storage pit
Fort Marcy Military Reservation—the area behind the Palace of the Governors that had been enclosed during the Spanish colonial and Mexican Republic periods and used as a presidio. During and after the building of Historic Fort Marcy this area was the main garrison of Santa Fe.
fresno—blade or bucket-shaped plow; often mule-drawn
glaze paint—a shiny paint made from pulverized minerals, often containing lead
great kiva—a very large kiva generally assumed to have been used by more than one village or by combined groups of social or religious societies
Historic Fort Marcy—The earthen fortification that is the subject of this study, this location was the first to be called Fort Marcy. Most sources agree, however, that this site never played as active a military role as the area behind the Palace of the Governors, which had served since Spanish colonial times as the presidio and later became known as the Fort Marcy Military Reservation.
jacal—construction method using sticks and mud for the walls and grass or straw for the roof
kiva—a Pueblo Indian social and religious meeting room, originally a circular semisubterranean room resembling a pithouse and later a square, above-ground (even multi-story) masonry room. Each kiva may have been the meeting place of different religious or social groups.
lithic artifacts—chipped and ground stone tools or by-products of tool manufacture; includes arrowheads and grinding stones
magazine—munitions storage
majolica—enameled, glazed, and richly colored and decorated pottery. The type was originally made in Majolica but quickly became popular throughout southern Europe and the Americas. Varieties made in different Mexican cities and towns were famous and widely traded during the Spanish colonial and Mexican periods.
micaceous—crushed mica or stones containing mica; in the Southwest, used as temper for pottery mainly by Navajo, Apache, and Hispanic potters and also by Pueblo potters in historical times
midden—trash and ash left by previous inhabitants

mineral paint—made from pulverized rocks mixed with water

parapet—wall used to screen troops from enemy fire

pisé—the slurry mixture of water, dirt, and temper used in **rammed earth** construction

pithouse—originally a residential structure, generally round and built at least partly underground although the upper walls and roof were above ground level. Entered either via a ramp or through a hole in the roof. Later, these buildings were primarily used as **kivas.**

presidial villa—officially chartered town that contains a military garrison

presidio—military post. In Spanish colonial times, there were strict rules determining which towns must build and maintain these fortifications.

rammed earth—a construction method consisting of mixing dirt, water, and generally some type of **temper** and then ramming or pounding layers of the mixture between hollow frames or simply mounded in place.

rampart—embankment of earth topped by a parapet

revetment—the facing of a wall or the retaining wall itself constructed to protect against bombardment

shovel test—a method of archaeological excavation usually limited to a half-meter or one-meter square (1.5 to 3 ft on a side); these tests are dug by hand to identify subsurface deposits

slurry pit—place where dirt was mixed with water to create a mortar or plaster

strike-a-lights *(chispas)*—a kind of reusable match that used flint to create a spark

temper—particles of crushed stone, shell, broken pottery, or other fragments used to strengthen clay that is to be made into pottery or adobe

utility ware—plain or unpainted pottery types usually assumed to have been used for cooking or storage. May have brown, gray, tan, or red"paste" forming the vessel walls, depending on the type of clay that was used and the way the pot was fired (baked in a kiln). Includes both plain and corrugated types, which show ridges or other marks from being pressed while the clay was still malleable (before firing).

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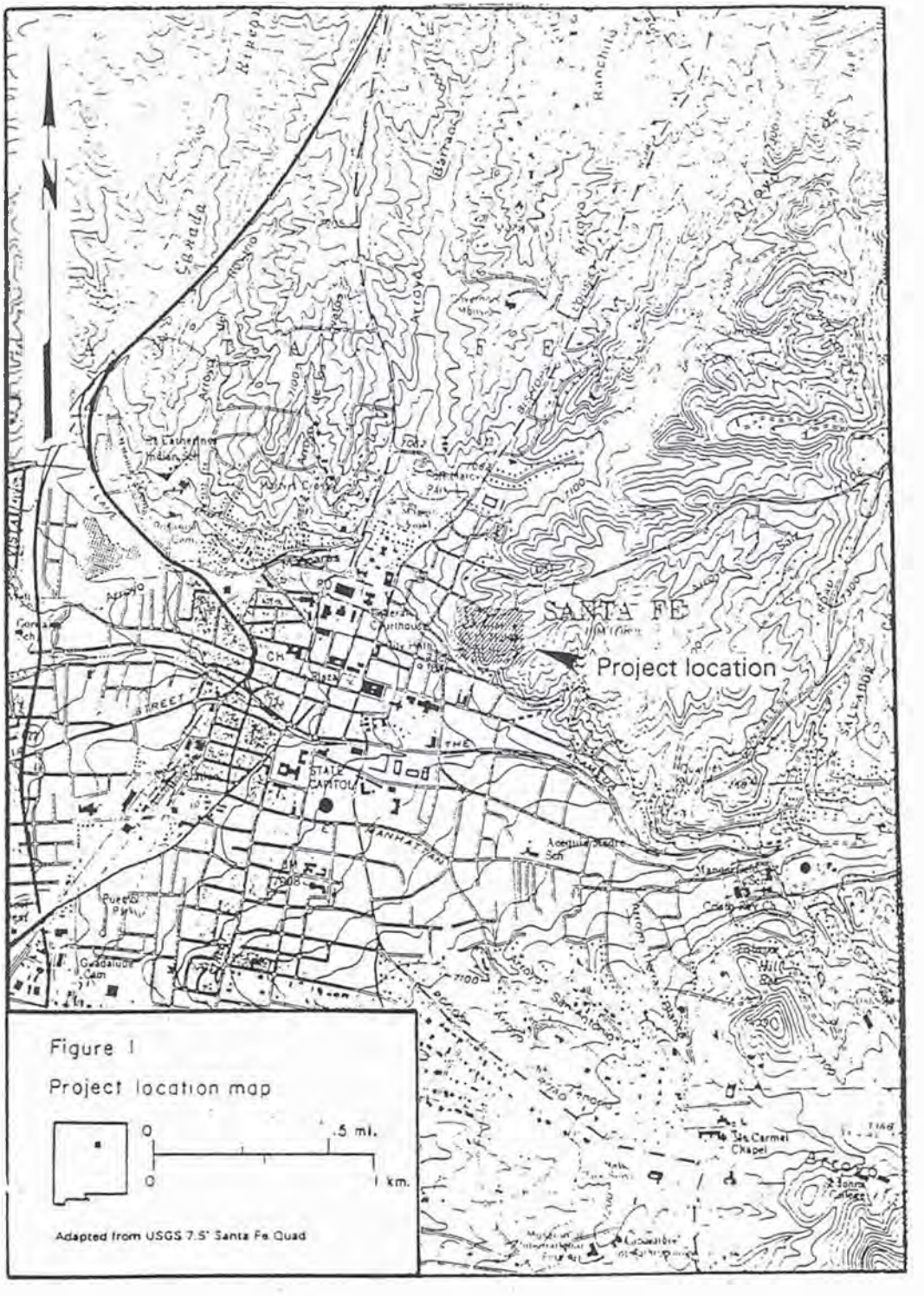
Figure 1 Site Location (not to scale)



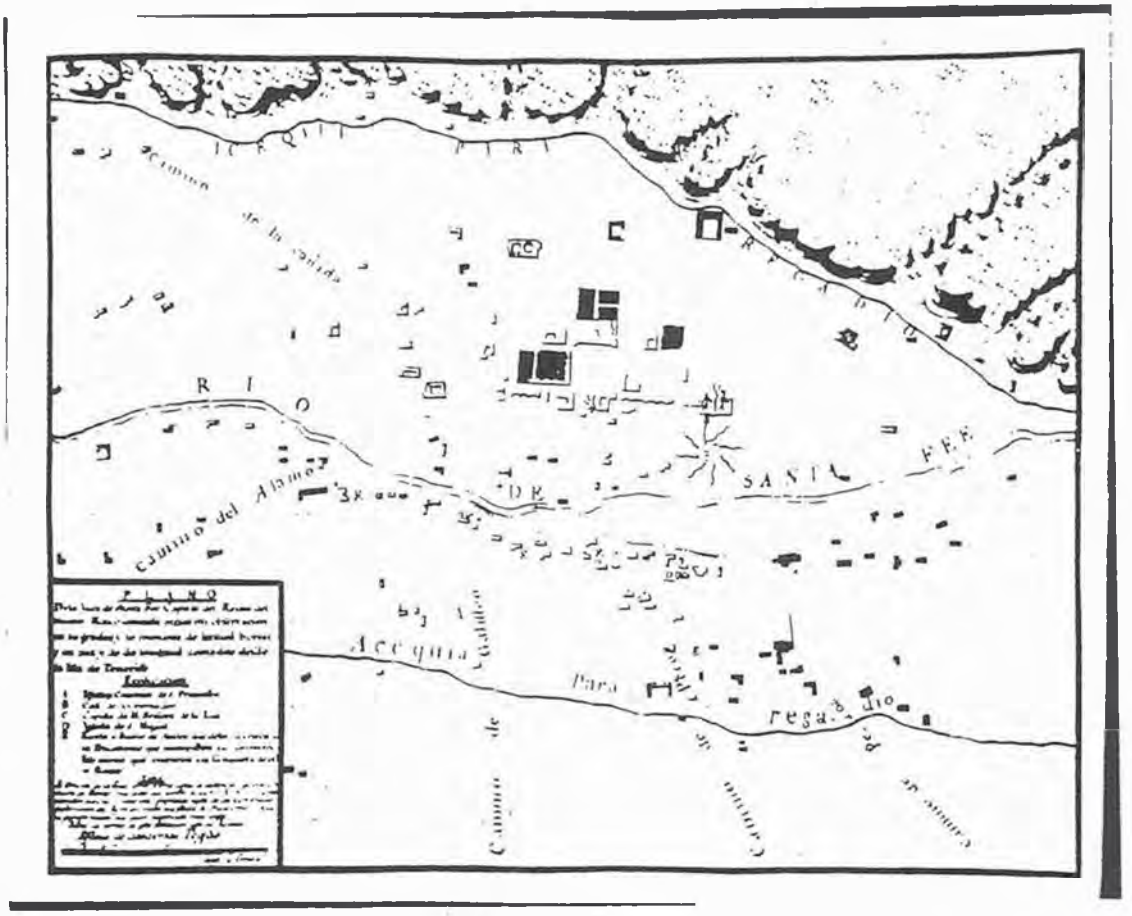


Figure 2 José Urrutia's Map of Santa Fe. 1766–1768. History Library. Palace of the Governors. Museum of New Mexico Negative No. 10948.

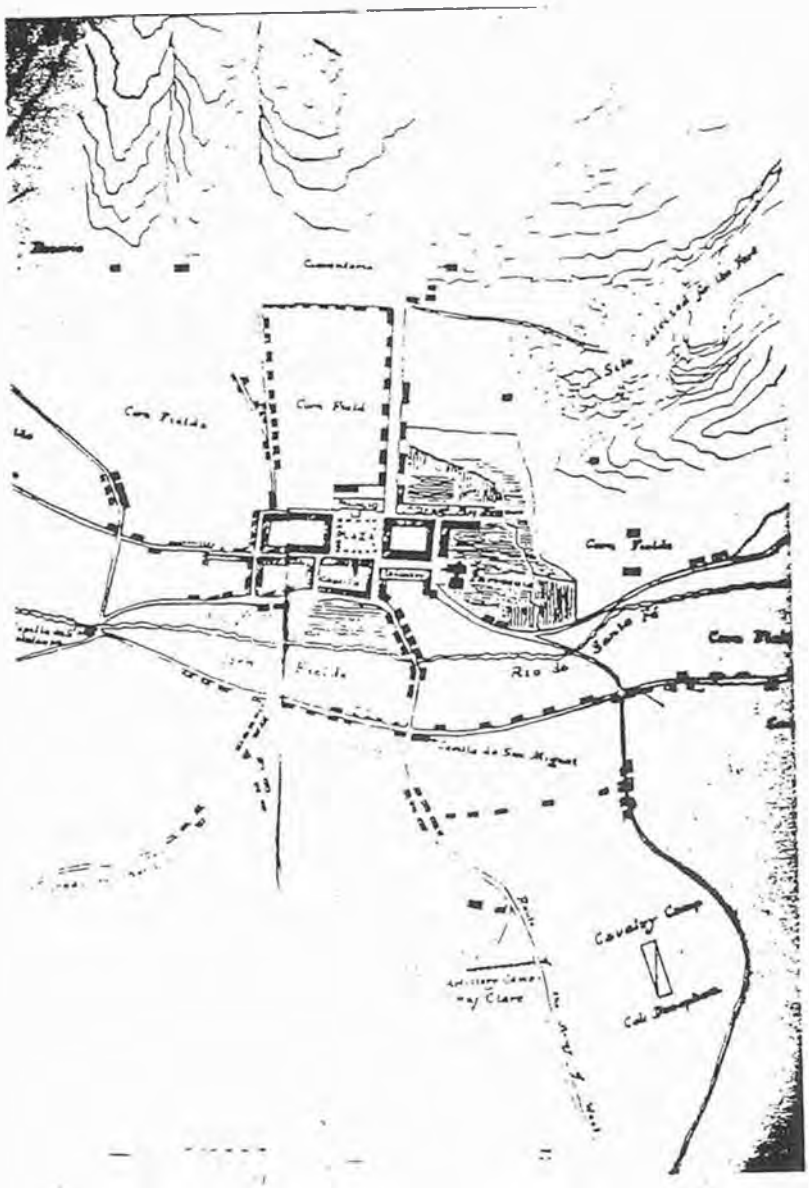


Figure 3 1846 Map of Santa Fe and Its Environs. by Lts. W. H. Emory and J. F. Gilmer. Museum of New Mexico.

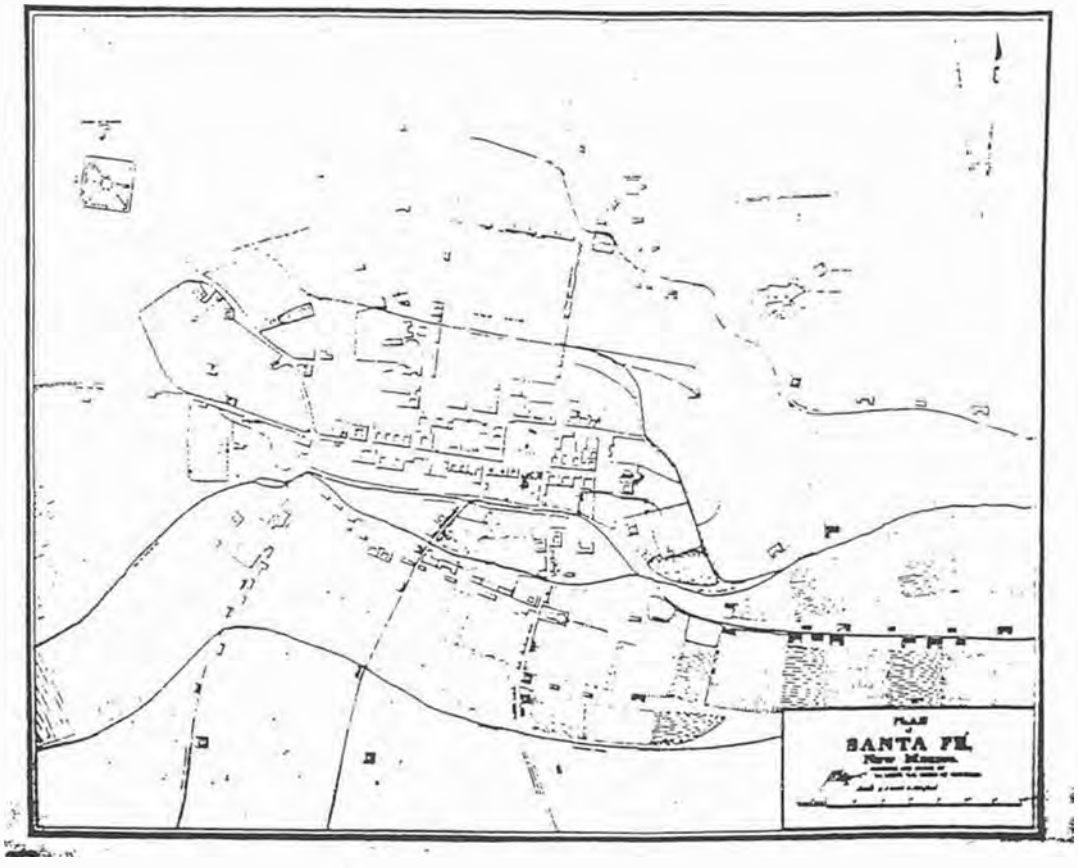


Figure 4 Plan of Santa Fe, New Mexico, by Lt. J. F. Gilmer. 1846–1847. Museum of New Mexico Negative No. 121985.

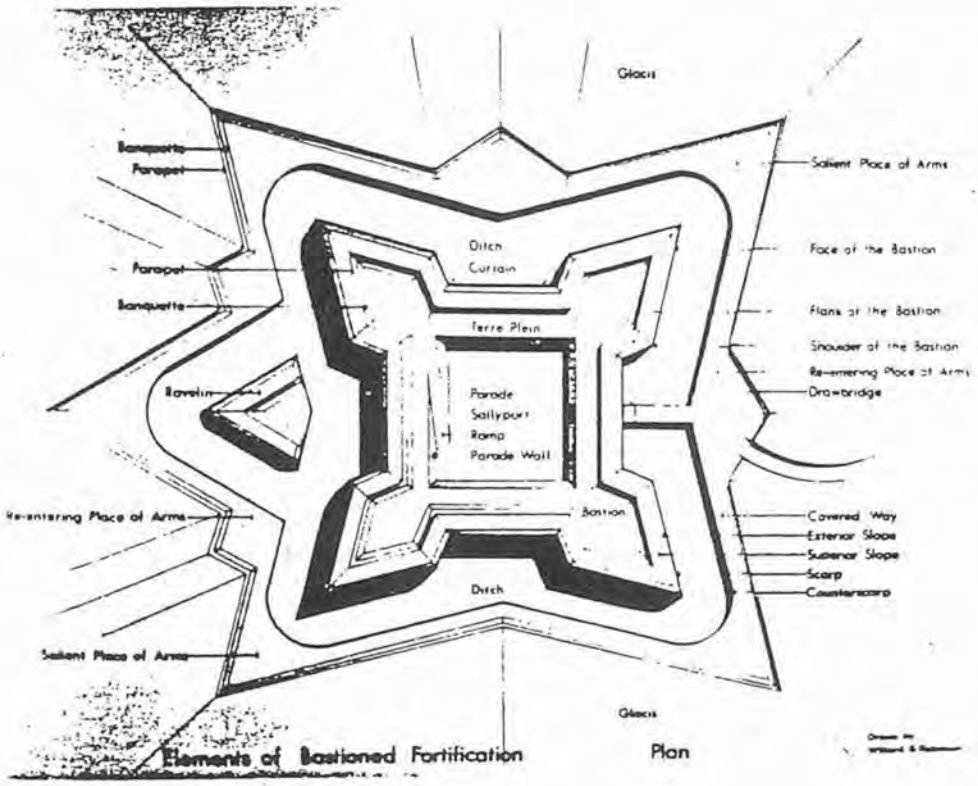


Figure 5 Elements of a Bastioned Fortification (from Mahan 1836)

Figure 6. View of Santa Fe, New Mexico, by Lt. Abert (published in 1848). Photo Archives, Museum of New Mexico.

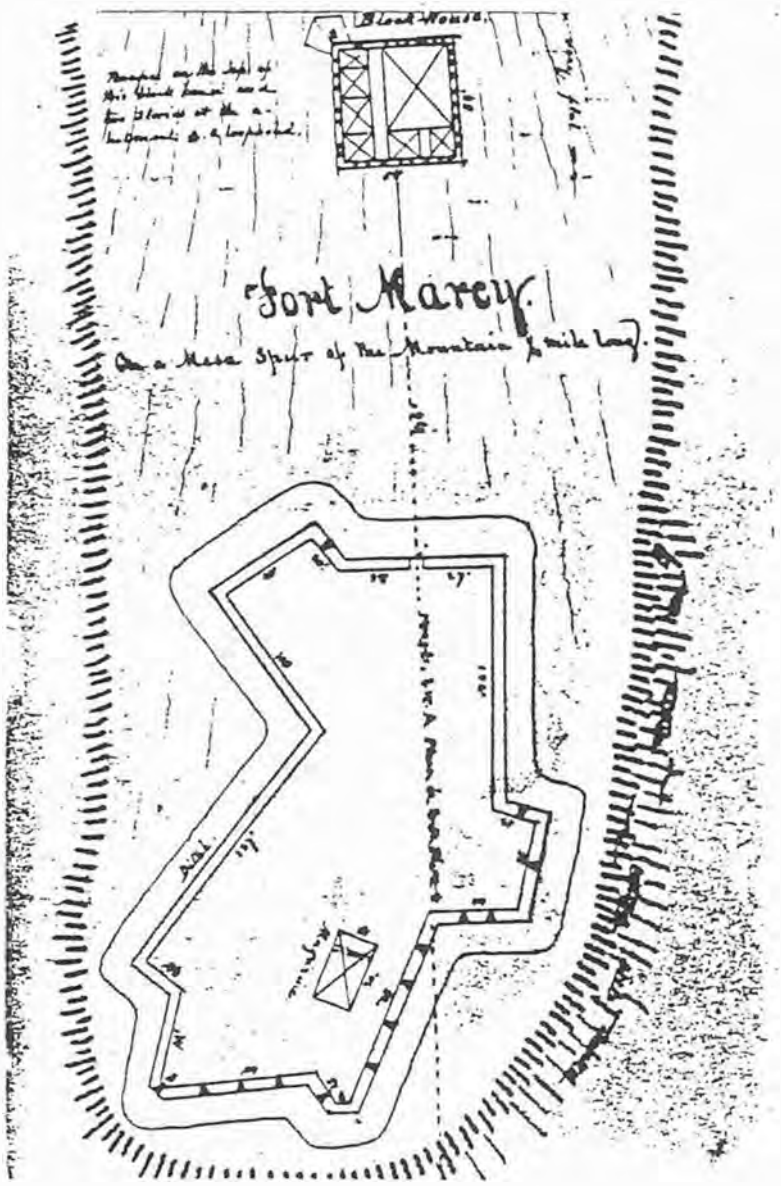


Figure 7 Mansfield's 1853 Drawing of Fort Marcy (from Frazer 1963)

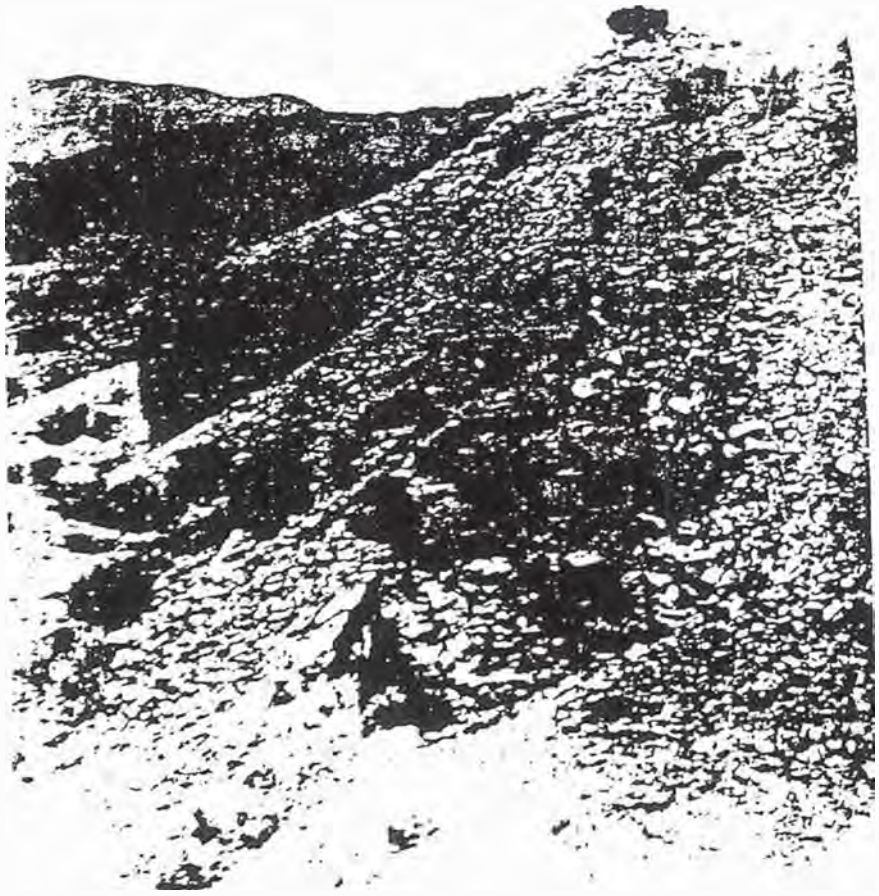


Figure 8 Ruins of Old Fort Marcy around 1880, by W. P. Bliss. The view is toward the southeast. Museum of New Mexico Negative No. 117647.

Figure 9 Fort Marcy Ruins. 1912. by Jesse L. Nusbaum. Museum of New Mexico. Negative No. 61547.

Figure 10 Fort Marcy Ruins, 1912, by Jesse L. Nusbaum. Museum of New Mexico. Negative No. 1725.

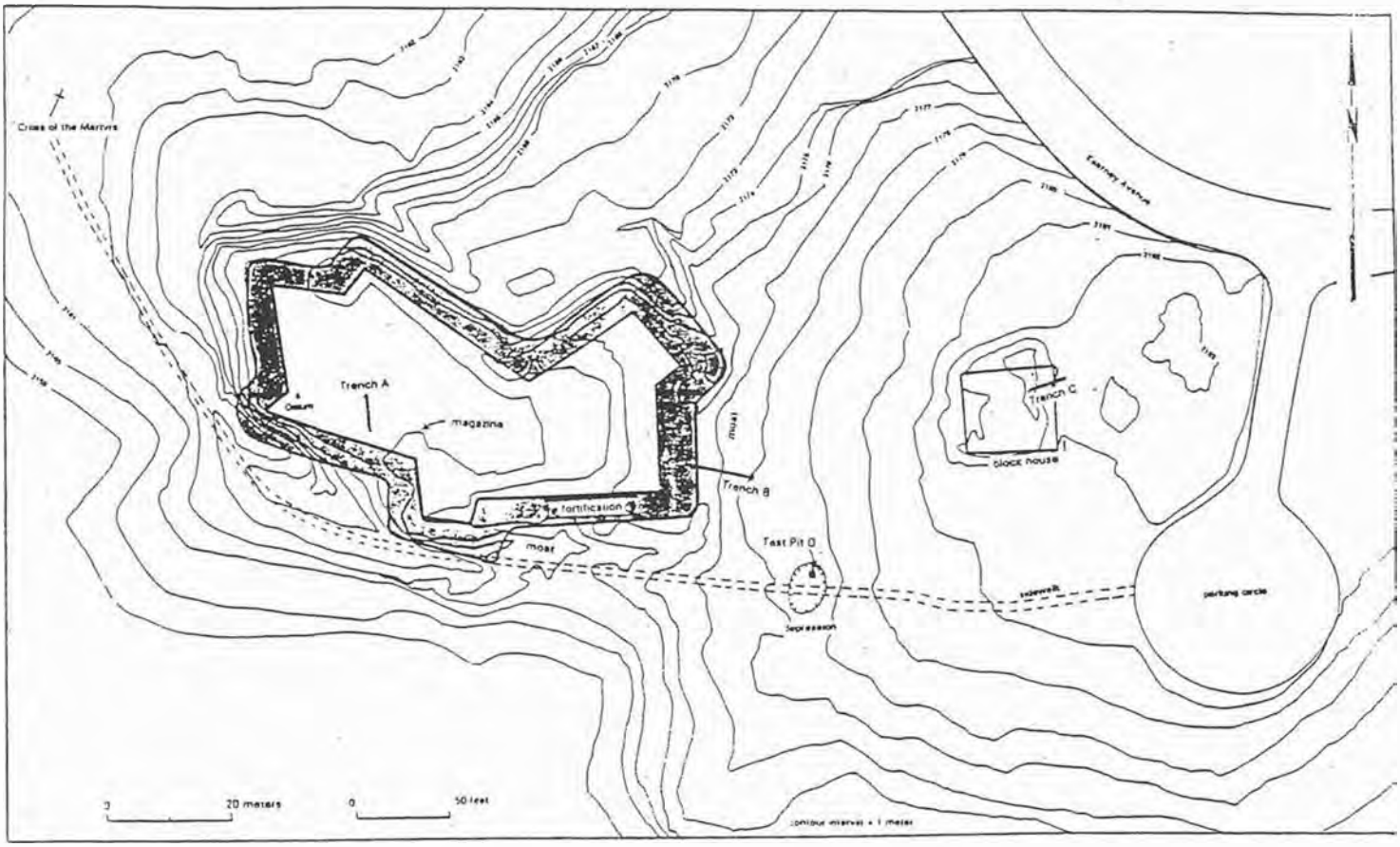


Figure 11 Location of 1995 archaeological testing (not to scale)

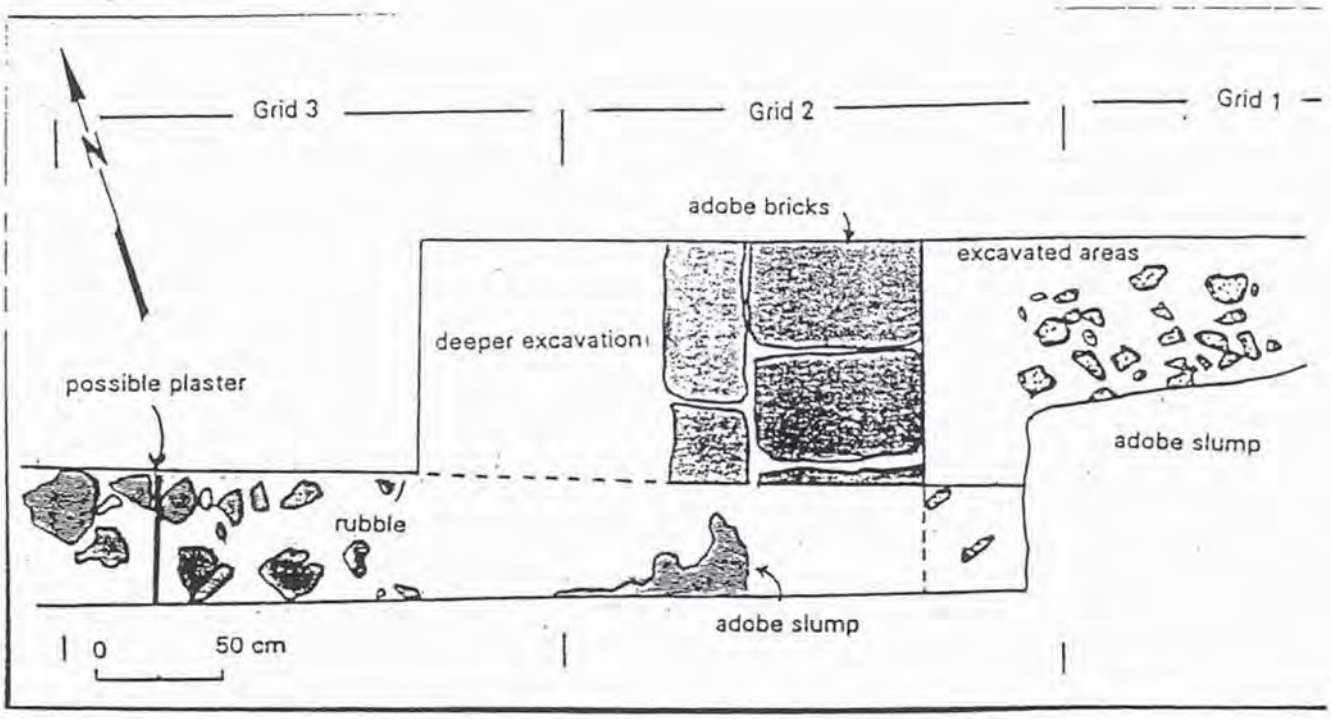


Figure 12 Plan view of Trench C (not to scale)

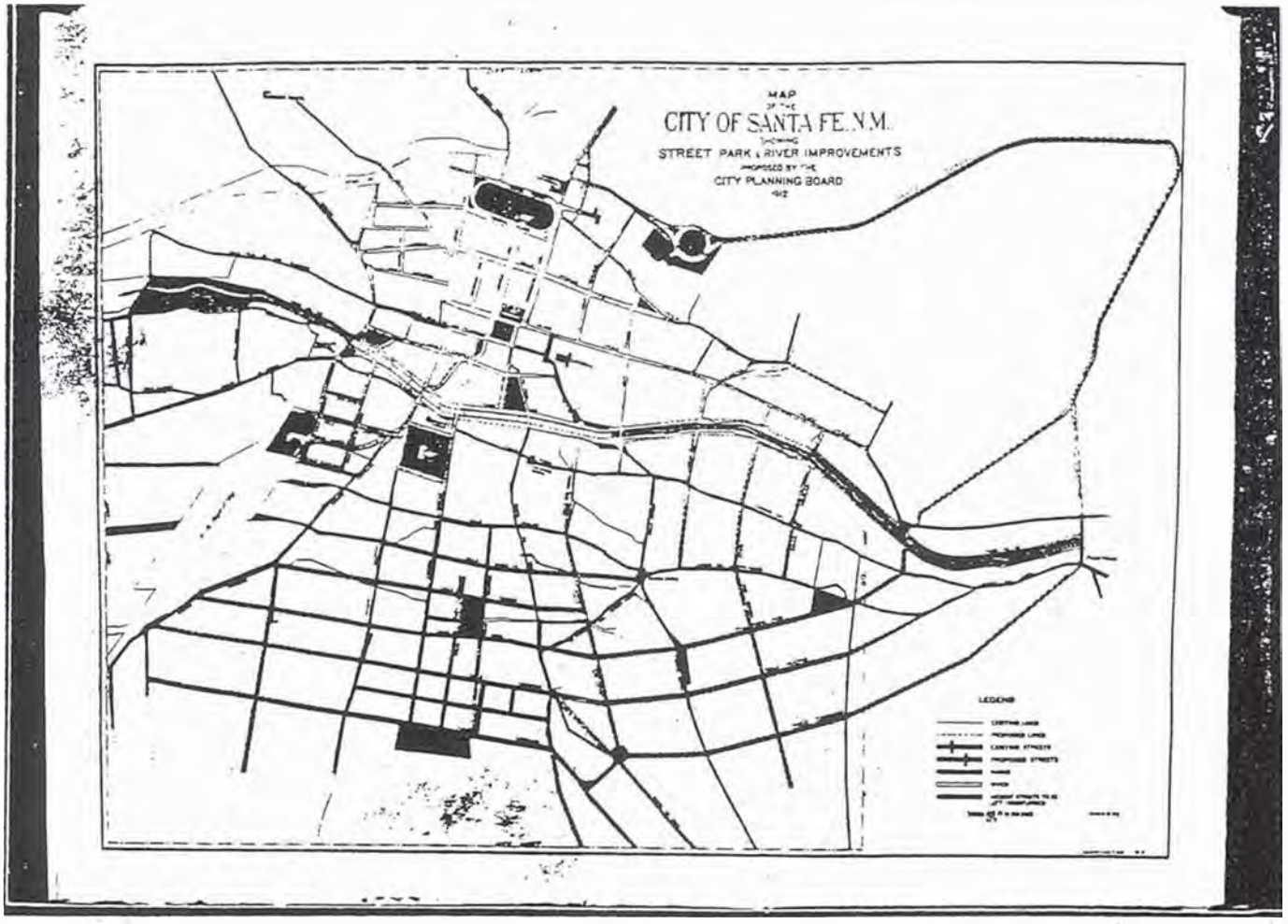


Figure 13 1912 Map of Santa Fe Showing Street. Park and River Improvements Proposed by the City Planning Board. Note park around Fort Marcy in upper right. Museum of New Mexico Negative No. 61530.

Figure 14 Aerial View of Fort Marcy around 1964. by Tony Perry. Photo Archives. Museum of New Mexico Negative No. 38348.

APPENDIX A:

Historic Fort Marcy Project 1995: Research Design
(Susan Swan, David Kammer, and Cordelia Snow)

Historic Fort Marcy Project 1995

Research Design

by Susan Swan, David Kammer and Cordelia Snow

April 25, 1995

Revised, May 1995

Submitted to:
Archaeological Review Committee
Planning Division
City of Santa Fe
Santa Fe, New Mexico

Table of Contents

List of Tables, Figures and Maps

Abstract

This is a report of progress to date on the 1995 study of Historic Fort Marcy. Further archival materials have been collected and identified, in addition to the review of archival documents previously collected, and a bibliography has been compiled. The records of the Laboratory of Anthropology have been consulted, including reports of archaeological investigations in the vicinity of the Fort,and the report of Mariah Associates (Aklen 1994) has been reviewed. Historic, archival and archaeological reports and documents have been collected and reviewed (individual experts have been consulted) in developing a research design,including proposed archaeological excavation, for the second phase of this year's study. This document will be submitted to the Archaeological Review Committee of the City of Santa Fe and to the State Historic Preservation Division for approval and permits and other authorities for review and comment as required by applicable laws.

Historic Fort Marcy Project 1995

Project Description

This project is the third phase of studies sought by the City of Santa Fe on the ruins of Historic Fort Marcy. The purpose of the study is to "provide historical information that will serve as the basis for the City of Santa Fe to prepare a Master Plan to guide public use and interpretation of the location" (Grzeskowiak, letter Dec. 15, 1994). Historic and archival information about the historic fort will be integrated with the results of the archaeological investigations to interpret the Territorial Period activities at the site.

Previous Work at Site

Fort March Ruins were listed on the State Register of Cultural Properties 7/20/69 and the National Register of Historic Places 4/14/75. The Laboratory of Anthropology has a site form record (LA 111: recorded by Cross Cultural Research Systems, July 3, 1989) and copies of the National Register nomination form, Museum of New Mexico Field Journal, maps, and a clippings file on the site. The Office of Cultural Affairs has the nomination form and the Museum of New Mexico has a field journal of information about the site.

Previous Phases of this Project

As stated above, this study is the third in a series of investigations. The first study (Wozniak 1992) focused on prehistoric uses of the site, archival resources relating to the construction of the Fort and its subsequent history. Wozniak's documentary collection on the construction of the Fort seems to be complete. Though both Edgar Hewett and Ralph Twitchell said that a prehistoric pueblo existed on the hilltop, Wozniak was skeptical, saying "Unfortunately, there are no indicates whatsoever in the records of the construction of the fort to sustain such a conclusion ..." (1992, p.1). However, several pithouse structures and artifact scatters have been located adjacent to the site and the presence of prehistoric material was confirmed by Mariah Associates' findings in 1994 (Aklen, 1994).

This was the first formal, archaeological investigation of the ruins of old Fort Marcy. Mariah Associates, Inc. created a topographic map of the Fort, using an electronic total station and data collector. This map shows the property boundaries, features, location of artifacts found on the surface and the location of 23 auger tests.

The sampling strategy used for the tests was unspecified. One shovel test was performed.

Site Description

Located in Prince Park, Historic Fort Marcy is just 665 yards from the plaza of Santa Fe. The plan of the original star-shaped fortification is clearly apparent Additional features are a large mound, the remains of the blockhouse; a smaller mound that is probably the remains of the magazine; an anomalous depression and a scatter of prehistoric and historic artifacts. The site is approximately 100 x 200 feet, for a total of 6.5 acres. As recorded by J. Evaskovic, D. Barsanti, D. Campbell and M. Dilley, it has three cultural/temporal components: 1) Anasazi Pueblo II Period (AD 1050- 1150); 2) Historic Puebloan (post AD 1700); and 3) Anglo/Euro-American (AD 1846 - ?). Given the Spanish use of Native American-made pottery and that no historic pueblo exists in Santa Fe, the second component would be more accurately described as Spanish-Colonial. In reconnaissance and tests, Mariah Associates collected prehistoric ceramics, historic ceramics, projectile points, biface fragments, lithic tools and debitage, bone and antler fragments, an antler tool, a bone bead and glass. The depth of the deposits is unknown, though auger tests found cultural material as deep as 90-110 cm's below surface and 1.5 meters of stratified cultural deposits are visible in a cutbank.

Much of the prehistoric material was disturbed by construction activities in 1846-47. Gibson (Wozniack p. 1- 2) reported that ashy, charcoal-laden soil and human burials in coffins were found when digging for the magazine. A different type of burial was uncovered at several other locations around the excavation site, but the character of the difference was unspecified (Wozniak, p. 2). Whether these later were associated with the prehistoric or historic components of the site is unknown.

Since the construction the site has been subjected to trampling, the movement of automobiles, construction of a paved road and sidewalk, a fire at one of the features, natural deterioration processes and the recent auger and shovel tests Despite all these effects, the primary features of the Fort seem remarkably intact. given the extent to which Twentieth Century development has affected adjacent areas.

Register Status

The site is listed on the State Register of Cultural Properties and the National Register of Historic Places.

Proposed Work

As stated above, historic and archaeological information will be integrated in interpreting the Fort for City planning purposes. Most of the archival and document search is complete, but the amount of archaeological information collected is slight and inconclusive on a number of important points. Therefore, further archaeological investigations are needed.

Reasons for Work

Fort Marcy is one of only two earthen fortifications built by the U.S. Army in the course of the Mexican War and the only one in the Southwest. The other, Fort Brown in Brownsville, Texas, was bombarded during the War; later buildings were constructed over the site, which is now a part of a golf course (Charles Haecker; Aaron Mahr; personal communication). Since the ramparts, magazine and blockhouse of Fort Marcy were built, they have not been subject to such drastic alterations. This makes Fort Marcy a unique archaeological resource of the era and type of structure. The fire which burned the 'observatory,' though destructive at the time, probably acted to preserve information about its adobe architecture.

Several questions remain about the features at the Fort. The purpose of the continuing historic research and proposed excavation is to address some of the questions; with good luck, answer other questions; and to confirm previously made assumptions.

1. What is the cross section profile of the rampart and dry moat? How does the contemporary description of their construction compare with their remains? How much of the original adobe facing remains?

2. The contemporary construction accounts report that excavations for the magazine were 5-6 feet in depth. Does this indicate that the magazine was primarily subterranean, or partially subterranean, as such structures were at the second fort of Fort Union?

3. Never occupied, never defended, what was the role of the Fort during Santa Fe's transition from being a part of Mexico to being a part of the United States?

4. Susan Magoffin described the blockhouse as having two adobe walls with the space between filled with stone and mortar. Gilmer said that barracks would be built within the blockhouse and Mansfield's drawing shows interior cross- walls. What is the architecture of the blockhouse? Is Mansfield's drawing accurate?

5. Is the blockhouse the 'observatory' that burned in 1882?

6. Gilmer had planned to construct wooden platforms for gun emplacements, but switched to rammed earth, due to the lack of milled wood. Did he indeed do this?

7. There was no water on the hilltop. As a child, Marian Russell reportedly fell into a cistern at the Fort. Is the anomalous depression a cistern which was built but never appeared in written contemporary reports? Was what Russell fell in not a cistern, but some fort-related feature such as a storehouse? [We know that a pithouse village is located in the area of the Fort. Is the depression a pit structure? This last question is not our reason for excavating the feature since it is out of the focus of this project. However. we must be aware of this possibility.]

8. How does the architecture of Fort Marcy compare with that of Fort Brown and/or other fortifications in the newly acquired territory along the United States westward moving frontier? What is the comparative relationship between Fort Marcy on the hill and La Garita, another minimally defended fort built by Spanish troops on a slope above the plaza?

The location of burials is of critical interest for future development of the site as a City park since some of these plans may involve digging. Unfortunately, confirming the location of the graves can involve uncovering them, the very thing that the City wants to avoid. This is complicated by the possibility (even probability) of prehistoric burials at the site and the provisions of the NM Unmarked Human Burial statute. The technical problem of finding the burials without disturbing or uncovering them is beyond the budget and time available for this phase. Non-intrusive or remote sensing techniques are preferable for locating the burials. Though the use of a metal detector can identify the location of coffin nails, it would also identify the location of metal unrelated to burials. The locations would have to be tested (partially uncovered) to confirm whether the metal was part of a burial. Areas negative to the metal detector could still contain prehistoric burials, or non-coffin burials of Euro-Americans. The equipment, expertise and personnel for other remote sensing techniques can be difficult to get and is expensive. Therefore, identifying where burials are located at Fort Marcy, though important, will be reserved for future projects.

[Note about the observatory: In 1879, the Army made observations on a solar eclipse from Fort Marcy. In 1882, a reward was offered for the capture of the individual who burned the 'observatory' at Fort Marcy. Mariah Associates found 'adobe or oxidized clay fragments' in auger test holes #18 and #12. The later hole is on the north periphery of the blockhouse feature. The other auger tests of the blockhouse showed ash and charcoal, though this was common throughout the entire site.]

For Whom the Work Will Be Done

The City of Santa Fe has contracted with Northern Research Group, Inc., as manager of the teamed efforts of David Kammer, Cordelia Snow and Susan Swan. It is funded by a CLG grant to the City from the New Mexico Historic Preservation Division.

Dates of Excavation

Field work will begin June 12 or when appropriate approvals and permits have been obtained and continue for two weeks.

Location (ownership)

The site is in the City of Santa Fe's Prince Park on unplatted land. The UTM coordinates for the center of the site are Zone 13, 415750 easting, 3949650 northing.

Research Approach and Methodology

RESEARCH APPROACH

The guiding principal underlying this entire project is to develop an interdisciplinary approach using archaeological methods and broad cultural and historic inquiry to interpret the site. Any test excavations will be designed to maximize the information acquired to address specific questions relating to Territorial Period activities at the site while causing the least destruction to the site. The proposed excavation is limited testing of certain features to address specific hypotheses; the overall integrity of the site will be maintained. Though prehistoric and pre-1846 Euro-American activities occurred at the site, our focus is on the period beginning with the construction of the Fort through its period of deterioration. The information gathered will give the City an opportunity to view the range of interpretive possibilities that the site offers.

Hypotheses

A number of hypotheses can be made from the questions posed. It is possible to address these hypotheses given the time and money available to this phase of the project.

Hypothesis 1: Undisturbed deposits exist illustrating the construction of the dry moat, rampart and revetment of Fort Marcy.

Hypothesis 2: The blockhouse is of adobe construction with a plan as Mansfield drew it.

Hypothesis 3: The blockhouse burned.

Hypothesis 4: The anomalous depression was a cistern.

Hypothesis 5: The magazine was an adobe-lined, subterranean structure

Hypothesis 6: The gun emplacements were of rammed earth.

Hypothesis 7: Fort Marcy's architecture is similar to Fort Brown's.

Hypothesis 8: Fort Marcy had an important symbolic role in the transition from Mexican to United States territory.

How can Site answer the hypotheses; data anticipated

Most of these hypotheses are unique to Fort Marcy and only historic and archaeological investigations about Fort Marcy can answer them. Though this project is very site-specific, it offers the possibility of adding to our understanding of military architecture of the Mexican War and also provides a context for the events which so altered the lives of New Mexicans. The effects of transition from being a part of Mexico, with its own cultural, political and legal heritage, to being a small and sub-ordinate part of the United States continue in land use practices, legal entanglements over water rights, the use of public lands and cultural preservation.

Sampling strategy and relevance to hypotheses

The selection of specific locations for cross-trenching, bucket auger tests and excavation are directly related to the hypotheses. The first hypothesis will be tested by cross-trenching a narrow section on the north side of the fortification (see Map 2). A complete cross-section of the dry moat, rampart and parapet can be exposed at this location with the least disturbance. The cross section will be excavated by backhoe to the level of the 1846-47 construction activities. Every attempt will be made to identify this level and avoid excavation into prehistoric deposits. The width of the trench will be sufficiently wide for safety, given the depth of the deposits and nature of the soil. The side walls will be shaved with a trowel to get the best visualization of the section, which will be thoroughly recorded. [The City will provide the backhoe.] Finding adobe bricks, disturbed and/or compacted soil will demonstrate that elements of the original construction remain. The measurement and description of these elements as revealed in cross-section, will form a basis for comparison with Fort Brown (hypothesis 7).

The height of the blockhouse mound (ca. 1 meter) suggests that substantial material from the original construction remain. Excavating from the exterior to the interior of the blockhouse, creating a cross-section, promises to provide information for answering the hypotheses regarding the blockhouse (# 2 and 3). A one-two meter wide by five meter long trench will be excavated by shovel and trowel in the northeast quadrant of the feature as indicated on Map 2. The trench will be excavated to the depth of the 1846 surface. Locating the expected interior wall where depicted by Mansfield will support the accuracy of Mansfield's drawing of the blockhouse (hypothesis 2). The presence of abundant charcoal and fire-hardened adobe mud will support the third hypothesis, whether in situ or fallen. Finding stone in mud mortar between courses of adobe brick will confirm Magoffin's description of the blockhouses construction; finding adobe walls will confirm Gilmer's description. Characterizing the various architectural elements will provide descriptive information to compare with Fort Brown's (hypothesis 7). This will provide information about the exterior construction and interior floor and walls while maintaining stability of the unexcavated portions of the blockhouse and making a hole that, when backfilled, will be less subject to erosion.

Hypothesis 4 will be tested by digging a one-meter wide cross-section of the its wall from auger tests #6 to #23 (Akien 1994). The interior of the depression will be

excavated until the bottom of the cistern or pit structure is reached. Since the soil on the hilltop was described as being very dry and ashen in 1846, the pit would have to be treated or lined in such a way as to retain water. Finding compacted clay or stone lining the walls and floor of the pit could support the fourth hypothesis. Colluvial silts immediately above a prepared surface would also support the hypothesis. If prehistoric artifacts or features on the floor of the pit are present the hypothesis would be rejected. The walls will provide architectural information and the nature of the bottom will help assign a cultural and/or temporal affiliation to this feature.

The presumed location of the magazine will be initially tested by bucket augering in approximately ten centimeter intervals to characterize the underlying deposits. Finding a contrast between the inside and outside tests similar to Mariah Associates' auger holes #6 and #23 would indicate that the feature tentatively identified as the magazine was indeed a human-made pit that has filled in by predominately natural processes. If such a difference is found, a one meter test grid will be excavated to expose the top of the remaining walls; only the overburden would be removed - the walls and interior space would not be excavated. At that point, whether the magazine was adobe-lined would be apparent which would support the fifth hypothesis. An auger test will be made just inside the wall to determine the depth of the floor. Comparison of this depth with the depth of the 1846 surface as found in the cross-trenching of the ramparts and the blockhouse will help determine whether the magazine was subterranean, or predominately so.

Testing the location of gun emplacements as shown on historic maps with a bucket auger will address the sixth hypothesis. Finding compacted soil at a depth consistent with the post-construction surface level would confirm the use of rammed earth. [The cross-trench of the moat and ramparts will indicated the post-construction level of the gun emplacements.]

The information gathered by these tests will be compared with data from Mariah Associates and construction narratives to form conclusions about the architecture of the site. This will be compared with architectural information from studies of Fort Brown and other earthen fortifications of the era (hypothesis 7).

'Testing' the eighth will depend upon eye witness accounts, personal narratives, newspaper articles and other historic documents. Though this information does not represent a complete cross-section of all of the residents of Santa Fe, tradesmen, soldiers or travellers, it may prove helpful in providing an historic context for the Fort and in interpreting the Fort to the public.

Non-relevant data collection

All artifacts and features encountered will be recorded and reported, regardless of cultural or temporal affiliation. All historic artifacts will be analyzed; a sample of diagnostic prehistoric artifacts encountered will be assessed.

METHODS

Background Research

As called for the contracts' scope of work, the research objectives and methodologies of the project are shaped, in large part, by a review of archival sources and findings listed in the Wozniak (1992) and Mariah (1994) reports as well as a comprehensive investigation of archival resources. In carrying out the investigation of archival resources, the team reviewed the holdings of the State Records Center and Archives, the Museum of New Mexico, the Laboratory of Anthropology, the Center for Southwest Research and the Government Publications sections of the Zimmerman Library at the University of New Mexico, and the maps, photographs and reports on file in the Planning Office of the City of Santa Fe. In addition, the team consulted with Harry C. Myers, Superintendent of the Fort Union National Historical Monument; Charles Bennett, assistant director of the Museum of New Mexico; the archival staff at West Point Military Academy; and Aaron Mahr, Palo Verde National Battleground, site of Fort Brown, another Mexican-American War earthen fort constructed at what is now Brownsville, Texas.

As a result of these investigations, the team has been able to develop a more comprehensive listing of archival resources. These additional resources are indicated by bold print in the bibliography. Among the primary sources are twenty-one additional listings including three military reports, two civilian accounts of Fort March, examples of earlier City efforts to boost Fort Marcy as a tourist attraction, and several maps, drawings and photographs, some dating to the nineteenth century. As a group, these additional primary sources cast a brighter light on Fort Marcy, particularly how soldiers, Santa Fe Trail travellers, and early City boosters perceived the fort.

Notable among these additional sources are the Conrad (McCall and Swords' reports of 1851 which describe military activities in Santa Fe, focusing on the logistics and costs of maintaining facilities in Santa Fe. Coupled with the Mansfield Report (1853) and several soldiers' accounts, they will enrich the context for appreciating the initial role of the fort and possible reasons for its inactivity. The Susan Magoffin narrative,based on her visit with General Kearny, offers the surprising assertion that the grounds within the fort were 'filled with stones and mortar" (Magoffin p.141), an issue that the archaeological testing will address. Finally, the additional maps, drawings, and photographs enhance an understanding of the fort. The Emory Drawings offer an iconography of military conquest that invites further deliberation of the fort's significance at the time of construction, especially when viewed in light of some secondary sources such as Kenneson and Meinig. the 1867 photograph offers the only known photographic image of Fort Marcy prior to its gross deterioration, and the 1920's photography from the Meem Collection offers evidence as the possible burial site of the many soldiers who succumbed to sickness and disease during the first years of American military occupatio of Santa Fe.

Secondary sources referring to Fort Marcy are numerous, and the team chose to include only sources which add specific new information about the fort or hold the potential to enrich a contextual understanding for interpreting the fort. Reflective of

the former is the Shishkin reference to celestial observations undertaken at the fort in the 1870's. When combined with TANM references to a regard for an arsonist who "destroyed the observatory at old Fort Marcy," it raises the possibility of drawing a better understanding about charcoal materials found in the vicinity of the blockhouse. Reflective of the latter are two groups of sources. The first group consists of those books, articles, and reports by military historians such as Frazer, Oliva and Utley who refer to Fort Marcy as a part of their broader efforts to understand regional history, including military conquest and the Santa Fe Trail. Using the same primary sources examined for this report, these writers offer helpful points of departure for interpreting the role of the fort.

The second group consists of books, articles, and a dissertation by cultural geographers and historians such as Ellis, Kenneson, Meinig, and Reps who examine the cultural milieu in which conquest occurs. Through looks at town planning, cross-cultural perceptions, and comparative structures (Ellis' discussion of another under-utilized small fort about Santa Fe--La Garita), they offer concepts that may be helpful in developing an interpretation of the fort which addresses not only its architecture and n]history but its significance as well.

Mapping Techniques

Copies of the topographic map produced by Mariah Associates will be used as field guides. Mapping information of the exact location of excavations will be provided to the City in a format compatible with the City's G.I.S. mapping system. Gar Clarke, the G.I.S. manager, has already been consulted and we will continue to work with him to this end as the project proceeds.

How Features Will Be Recorded

Plan view drawings of each level excavated will be made with written notes describing artifacts, soils, etc. ; pencil will be used for all field notes; excavators will keep daily logs of their individual efforts; the site supervisor will keep daily records of the work assignments, progress and significant findings; the cross-sections will be drawn, have written descriptions, will be photographed and videotaped; significant features will be drawn and photographed; the measurements will be metric.

How Units Will Be Excavated

The units will be excavated by backhoe, trowel and shovel; soft brushes and dental picks will be used where necessary. The screens will be 1/4 inch mesh. The size of the unit will vary by feature, but generally will be 1x1 meter. Arbitrary 5 cm intervals will be excavated through overburden and fill until the 'natural level' of wall or floor is reached. Extant walls will not be removed nor sub-floor excavations be made. The only architectural elements that will be disturbed are those that have already been displaced, except for the portion of moat and rampart that will be destroyed by cross-trenching.

How Artifacts Will Be Collected

Though the focus of excavations is the architecture of the Fort, artifacts will be found. All artifacts encountered on the surface of excavation units and within levels will be collected and their location recorded by grid and level. Surface artifacts outside of excavation units will not be collected unless they are at risk of being picked up and removed.

How will Samples Will Be Collected

Because the scope of the project is limited to the Territorial Period military activity at the site, no pollen samples, C14 samples or other samples requiring laboratory analysis will be taken.

How Artifacts and Samples Will Be Analyzed

Given the extremely limited activity around historic Fort Marcy in the Territorial Period and the primarily architecture-related focus of the excavations, probably few artifacts will be collected. All that are found will be counted and analyzed as to material, styles, function, method of manufacture, date of manufacture, place of manufacture and associated feature. Reconstruction studies will be made of ceramics and glass.

Since the Fort was constructed on a prehistoric site, prehistoric artifacts will probably be encountered, though outside the purpose and focus of this study. Prehistoric artifacts will be grouped by type and style, counted and reported. Diagnostic artifacts will be analyzed and reported; reconstruction studies of prehistoric ceramic will be undertaken.

Since no samples will be taken, none will be analyzed.

Time Frame and Personnel

The archival and preparation phase of this project began April 1, 1995; the excavation will be the later half of June, depending upon the permitting process; and all analyses and final reporting will be completed by August 31, 1995. David Kammer has been and will continue doing historical research. Cordelia Snow has been and will continue consulting on the project and will supervise all fieldwork and historic artifact analysis. Swan is acting as general archaeologist and project manager and will supervise the field crew. A field crew of four people will be recruited from NMHU graduate and undergraduate anthropology students who have at least one season of field experience. We understand that several City employees would like to volunteer at the site. Plans will be made for their participation, however, they will not be depended upon to do the work.

Curation

The artifacts will be curated at Museum of NM (curation agreement attached). Copies of the final report, with Laboratory of Anthropology project and survey forms, photographs, etc. will be sent to the City of Santa Fe, Historic Preservation Division and Laboratory of Anthropology. Field notes and other original manuscript material will remain on file at Northern Research Group. Selected copies of field notes will be included.

MUSEUM OF NEW MEXICO

Laboratory of Anthropology
Museum of Indian Arts and Culture

Conservation
Statewide Programs and Education
Exhibitions
Laboratory of Anthropology
Museum of Indian Arts and Culture
Museum of Fine Arts
Museum of International Folk Art
Palace of the Governors
Museum of New Mexico Press
New Mexico State Monuments

December 6, 1994

Ms. Susan Swan
Archaeologist
Northern Research Group, Inc.
Post Office Box 2582
Las Vegas, NM 87701

Dear Ms. Swan:

This letter certifies the willingness of the Museum of New Mexico, Museum of Indian Arts and Culture/Laboratory of Anthropology, to curate archaeological collections and records recovered by you within the State of New Mexico. It is understood that this curation agreement is contingent upon your qualifying for the necessary federal and/or state archaeological permits. Collections will be managed in accordance with federal regulations (36 CFR 79), state law (10-6-6 NMSA 1978), and museum policies.

Our manual, Procedures for Submission of Collections, is currently being revised and will be sent to you soon. You will need to follow these procedures when you prepare collections and records for curation. Until you receive the updated version, continue to follow the guidelines in our Procedures dated 12/1/88. It is essential that any necessary consultations about sensitive materials have been conducted and that documents confirming these consultations are submitted with the collection. In addition, you must submit proper documentation transferring title of private collections to the Museum of New Mexico.

The curation fee for artifacts and bulk records is $225.00 per standard box (about one cubic foot), as detailed on the attached Schedule of Fees. We do not provide plastic bags nor do we allow credit for supplies you purchase. Use your own boxes for transportation. Final boxing in our standard boxes will be done here. An invoice will be sent once the collection is processed.

In order to allow Curtis Schaafsma more time for research and public programs, I will now be issuing curation agreements; if you have any questions, please contact me.

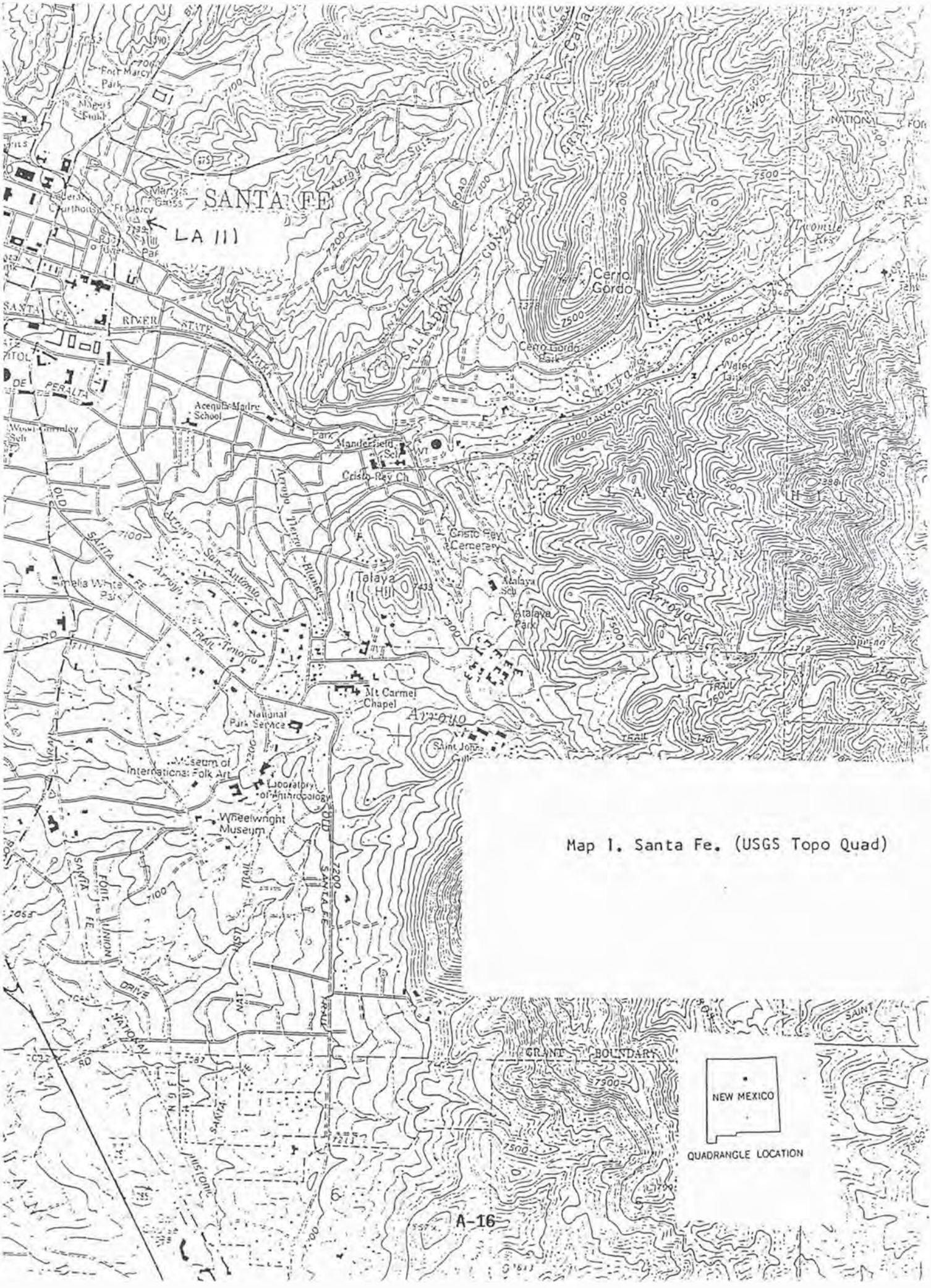
Sincerely,

Patricia L. Nietfeld

Patricia L. Nietfeld
Curator, Archaeological Research Collections

enclosure
cc: Curtis Schaafsma

P.O. Box 2087 · Santa Fe, New Mexico 87504-2087 · (505) 827-6344 Fax (505) 827-6497 · A Division of the Office of Cultural Affairs



Map 1. Santa Fe. (USGS Topo Quad)

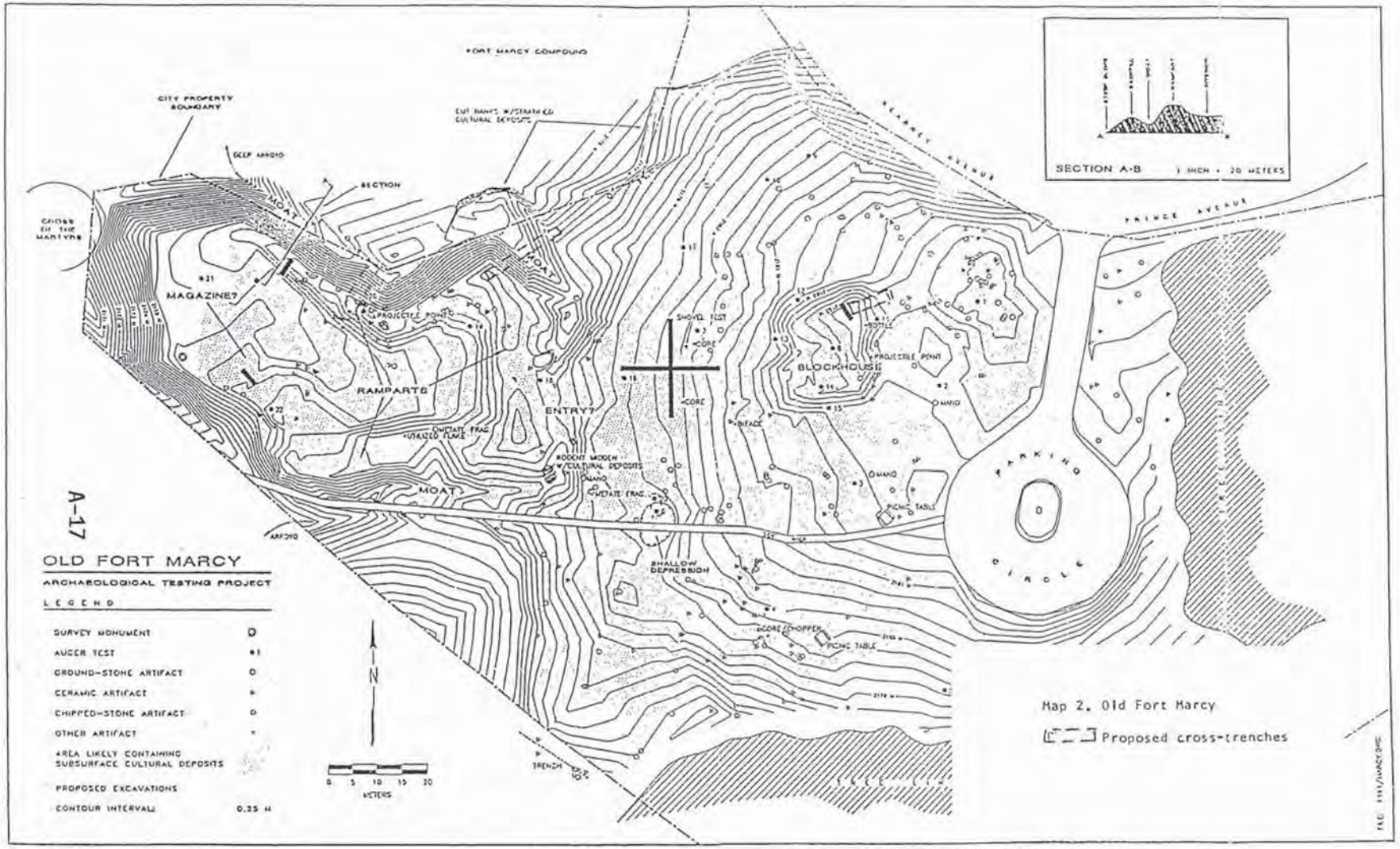


Figure 5.1 Old Fort Marcy Site Map.

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APPENDIX B:

Fort Marcy: Its Significance and Relevance to Santa Fe (David Kammer)

Fort Marcy

Its Significance and Relevance to Santa Fe

by David Kammer

For much of the twentieth century, archaeologists, historic archaeologists, and historians have devoted a good deal of energy to piecing together Santa Fe's past. With changes in research methodologies and the uncovering of new information, they have contributed to a more accurate and detailed chronology of the city's past. Equally fascinated with the city's past are many of its citizens and visitors, people drawn by the lure of the nation's oldest capital city, its setting, its rich historic cultural mix, and its striking architecture. Responding to and encouraging these interests through the promotion of historical and cultural tourism, the city's boosters have labeled Santa Fe "the city different" since statehood, a period that more or less mirrors the time during which archaeologists and historians have scrutinized its past.

Despite these efforts to preserve and share Santa Fe's past, as with telling of any story, oversights occur. Much neglected has been Fort Marcy, the earthen fieldwork that overlooks the plaza from the northeast and dates to the American occupation of New Mexico in 1846. Civic leaders sought to preserve it and to include it as a resource in presenting the city's past as early as 1912 (Prince 1912:10; Santa Fe City Planning Board 1912). In recent years, noted historians have revisited that topic in scholarly articles, noting that it is the only remaining fortification in the United States pertaining to the Mexican-American War and that it symbolizes the expansionism that drove much of the nation's westward expansion (Bloom 1959; Utley 1983; Wilson 1989). Eight decades later, as the century draws to an end, however, efforts to preserve the site of the fort and to offer the visiting public an interpretation of its significance have lagged. This neglect is, in part, attributable to the selectivity that has marked popular presentations of historic Santa Fe. It reflects a bias begun in the 1920s by Anglo and Spanish-American cultural leaders and reinforced by the romantic expectations of tourists. Those expectations emphasized the city's connection with more distant Indian and Spanish periods and, increasingly, excluded events occurring during the Mexican and American periods of the nineteenth century.

Current leaders and planners, recognizing that the fort offers insights into an essential but long under-appreciated chapter in the city's development, now seek to include an examination of the fort as a part of their efforts to present a more complete picture of the city's past. To accomplish this goal they have supported two recent archeological and archival investigations (Acklen 1994; Wozniak 1992) and, during 1995, additional archeological and archival research.This interpretative discussion of Fort Marcy and its role in Santa Fe's history reflects those most recent efforts.

The Army of the West Comes to Santa Fe

Historians differ on the causes they ascribe to the outbreak of the Mexican-American War. Most agree, however, that the election of the Democratic candidate, James K. Polk, as the American

the Second Missouri Volunteers. By the time he returned to Santa Fe in August 1847, Philip Gooch Ferguson walked up to the fort, "built last year by the volunteers but never been occupied," and surveyed on the slope just below the southwestern rampart "over three hundred [soldiers'] graves, all dug within eighteen months" (Ferguson in Bieber 1936:317–318). Ferguson's description of the graveyard corroborates that of Gibson who described it as located "on the hill near the fort, where all the soldiers are interred, . . . almost immediately under the guns of Fort Marcy" (Gibson 1935:253).

Later, after he had been sent with other volunteers into Mexico and was returning to Missouri, Gibson paid a last visit to Fort Marcy. As he stood gazing over the city, he remarked that he was "not only astonished but grieved at its [the post cemetery's] magnitude," and that "its 300 new graves attest to the mortality which existed among the troops and teamsters" (Gibson in Frazer 1981:39). Although his attitude toward the work habits and discipline of the volunteer soldiers was less charitable than Gibson's, Gilmer, too, must have realized that despite his displeasure over the troops' poor work, which had contributed to the delays in his project, the ill-prepared army was paying a great toll during its first winter in New Mexico. Seizing the land had been bloodless, but the cost of holding it would be apparent every time he climbed the hill to inspect his project. The graveyard below the fort remained apparent well into the twentieth century, long after Fort Marcy had been abandoned.

The Fort on the Hill

By November of 1846, Fort Marcy had assumed an outward appearance of completeness. Although completion of the magazine and blockhouse awaited the return of warm weather and the moat required deepening, the fort on the hill had become, as it remains today, a part of Santa Fe's landscape. Looming over the city, it was daily reminder that the Army of the West had taken Santa Fe and intended to hold it. Seen from the plaza, the fort appeared as an earth-toned set of planes, punctuated by salient angles, rising above the irregular contours of the bluff. With its periodic splayed embrasures creating a crenellated effect, and already with the relief of its moat and rampart making it taller than any of Santa Fe's buildings, save the churches' facades, the fort assumed a symbolic role for the city's occupation force.

Lieutenant Abert, returning from Albuquerque in October, for example, noted his first glimpse of Santa Fe as occurring when "Fort Marcy came in view, and our glorious flag" (Abert 1848:754). The two illustrations he prepared of Santa Fe that were included in Lt. Emory's report on the Army of the West's campaign convey a similar perspective. One illustration, "A View of Santa Fe, New Mexico" views the city from a southside perspective above the Barrio Analco. It depicts the city as a collection of rectangular buildings most of which are set amongst fields but more heavily concentrated near the plaza, which reposes beneath an enormous flag. Cactus, yucca, and a few residents constitute the foreground. Across the valley in the background rises Fort Marcy, crowned by a flag and appearing as the upper portion of a truncated pyramid.

His other illustration, "Fort Marez (sic) and the Parroquia—Santa Fe," offers a close up view of the Parroquia detailing its architecture and its social and material setting. To the left, set beneath the crest of the Sangre de Cristo Mountains but clearly above the church and its

parishioners stands the fort. Offering no accurate depiction of its irregular form, the illustration emphasizes its embrasures and, again, the American flag. So immense is the scale of Abert's flag that one suspects it might completely enshroud the Parroquia's belfries. Iconographically, the fort and the flag of its builders appear to rise above all other human endeavors as if a reminder of American control over the entire landscape.

The views of Abert and Susan Magoffin that the fort was a welcome and commanding site were shared by many others visiting Santa Fe during the first year of occupation. Most of these diarists note making a special trip up the hill to visit Fort Marcy. John Hughes, a Missouri Volunteer, described its appearance as "commanding the city" (1907:245); another Volunteer, Philip Gooch Ferguson, thought it was "of great strength . . . on a hill commanding the town" (in Bieber 1936:317); and William H. Hunter, travelling to the gold fields of California the following summer, stood on its ramparts, noting how it commanded "entirely all its [Santa Fe's] most densely populated portion" (1992:54). As Hunter weighed its "position and substance," he felt it "capable of resisting any attack the Mexicans or Indians might ever feel inclined to make." Noting its potential as "a citadel in case of extremities . . . until help arrives, " Lt. Emory offered a more blunt assessment that "its chief object" was to use "its imposing position" to achieve" a moral effect over a feeble and distracted race, who are now, since the capture of their artillery, without a single gun" (in Gibson 1935:220).

Responses such as these are consistent with what cultural geographer Donald Meinig views as an imperial power's efforts to "ensure domination at minimum cost and trouble" (Meinig 1993:176). In discussing the transition of Santa Fe from a Mexican capital to the seat of American territorial rule, Meinig traces the symbolic shift from Gen. Kearny's forces raising the flag over the Palace of the Governors, the traditional locus of authority, which Kearny and his successors then occupied, to the gradual imposition of a "more visible imperial geography and landscape."

In the case of all conquest, the imposition of this "imperial geography" is an evolving process. Generally politically initiated, as with Polk's declaration of war, it is most often accompanied by the appearance of a coercive military force which manifests its presence through a display of power, often through establishing or taking control of a fort. In Louisiana, the United States asserted its purchase of the territory by taking control of and then expanding Fort Saint Phillip along the Mississippi; in Hawaii, where it found itself competing with other imperial powers, it resorted to having the Pacific Squadron show the flag with frequent appearances; and in the Great Salt Lake Basin, where it sought to assert its control over Brigham Young's Kingdom of Deseret, it sent one-sixth of its army to establish Camp Floyd and then Camp Douglas on the plateau overlooking Salt Lake City. As the process moved forward, the new imperial geography began to assert itself in various forms. The forts, transitional symbols of military imposition, gave way to more complex expressions of cultural imperialism, ranging from shifts in building materials and architectural styles to the emergence of bi-culturalism and shifts in economic patterns. Evidence of this evolving "imperial geography" is present to this day and contributes to interpretations of the cultural landscape and social history of Louisiana, Hawaii, and Utah.

When this process is applied to the American experience in New Mexico, Fort Marcy can be seen to represent a transitional symbol. A readily definable structure associated with the military phase of conquest, the fort represented an initial manifestation of imperial authority. Having

already created an economic sphere of influence in northern Mexico, through trade along the Santa Fe Trail, the forces of American imperialism now imposed a military-political dimension. Later, military roads and additional forts would be added and then give way to the foundations of a federal building, a bilingual newspaper, the American legal system, and the offices of the Surveyor General as America's "imperial geography" took hold in New Mexico.

More difficult to ascertain because of the lack of written documentation is the perspective of the conquered peoples, the New Mexicans themselves. One account of Santa Fe by Col. Francisco Perea, who had served in the Union army and whose reminiscence was recorded in the 1880s, offers the perspective of a young New Mexican who had been educated in St. Louis. The nephew of Don Jose Leandro Perea, a leading member of New Mexico's elite, wealthy class, or *ricos,* he visited Santa Fe shortly after Kearny arrived. To the young Perea, the city seemed prosperous with money "more plentifully distributed in and about Santa Fe, than at any other time in its long history" (Allison 1915:396). Attributing this prosperity to the arrival of the army paymaster and the army's purchase of food supplies and forage, he noted that "large sums of money were also paid for labor and material used in the construction of Fort Marcy."

These benefits prompted Perea to conclude, "The greatest blessing that has ever been bestowed upon the people of New Mexico was given them when the United States arbitrarily extended its jurisdiction over their province and demanded their future allegiance" (Allison 1915:394). These remarks certainly are not representative of those of some New Mexican political leaders to whom a change in government represented a loss of authority, nor of the masses of laborers and subsistence farmers. They do, however, represent the economic interests embraced by both the American and Mexican trader and merchant classes. Commenting on various motives shaping the mission of the Army of the West, Howard Lamar suggests that beyond the "vaguer expansionist sentiment called Manifest Destiny . . . American conquest meant regularizing and securing rich trade and safe transportation routes for a previously erratic, uncertain enterprise" (Lamar 1966:63). Viewed in this light, Fort Marcy was not simply a symbol of the imposition of American political and military will in New Mexico, but also a symbol of reassurance for those seeking economic stability in the Santa Fe Trail trade.

In the absence of accounts written by New Mexicans who were not ricos, inferential evidence must suffice. Certainly the remarks of Lieutenant Governor Vigil y Alarid concerning the need of children to weep at the tomb of their parents speaks for many who otherwise remain silent to history. As the fall gave way to winter, many people in New Mexico became increasingly uneasy with the occupying army. The undisciplined troops of the Second Missouri Volunteers under Col. Sterling Price, who had replaced Col. Doniphan and the First Missouri Volunteers in October, disrupted city life. Their public drunkenness, their attendance at a seemingly endless series of fandangos, and their loud, unruly manner had prompted the army to enforce curfews and left many citizens puzzling over whether Gen. Kearny's promise to protect them applied to protection from the American soldiers as well. Moreover, the institution of the Kearny Code and the appointment of a set of territorial officials, including some of the ricos, whose past actions were hardly sympathetic with the interests of most New Mexicans, prompted some Santa Feans to plan an insurrection in December 1846.

Alerted, Col. Price suppressed the plot before it unfolded only to see a more lethal one erupt in January 1847 when Governor Charles Bent and several others were killed in Taos and Mora.

The army's retaliation was swift and severe as it took the offensive, moving units out of Santa Fe to pursue and punish the perpetrators. Although he makes no reference to any role Fort Marcy played during those bloody weeks, the fort's builder was sufficiently sobered to reflect on the meaning of the events. Sending his report of the uprising and ensuing battles, in which he apparently did not participate, Gilmer shared a lesson he had learned. "The friendly deportment of the leading Mexicans—the Ricos—when we first came into the country, led many of us to suppose that they were pleased with the change of Government, but it has been now fully demonstrated that such was not the case" (Gilmer to Totten, April 1, 1847). While the role of some ricos in fomenting the uprising remains unresolved, the shock of recognition in Gilmer's tone suggests how incompletely the Americans understood New Mexicans' perception of them. So great was this animosity that a state of "guerilla warfare" persisted in which American soldiers "were found beaten to death with rocks" and were buried with the others below Fort Marcy (Bloom 1959:198).

The uprising, louder and more long-lasting than the written words in whose absence it stands, suggests the widespread discontent many New Mexicans felt toward their American occupiers. Poorly armed, lacking military leadership, but insistent upon striking back at those who now ruled their land, those New Mexicans who rebelled did so not by confronting the fort above the capital city but by carrying out a series of strikes in the more distant, less protected towns of the territory. True, Fort Marcy may have discouraged Santa Fe's would-be rebels, though the troops encamped in the city and the guns on the plaza were more immediate and probably more threatening than the troops. The symbol of conquest to so many Americans, the defensive fieldwork was of little strategic value during the one period of open, mobile conflict in New Mexico prior to the signing of the Treaty of Guadalupe-Hidalgo in February 1848.

An Expendable Symbol

By early August 1847, Lt. Gilmer realized his hopes of leaving Santa Fe, and he departed to his new assignment as Assistant to the Chief Engineer of the Army. Despite delays, by late April in his last report to Col. Totten, Gilmer estimated that he would finish the blockhouse "as early as the middle of June" (Gilmer to Totten, April 28, 1847). During following years, he worked on numerous other fort projects along the Atlantic Coast, southern rivers, and in San Francisco Bay. At the outbreak of the Civil War, he ended his army career to become the Chief Engineer of the Confederate States of America. By his death in 1883, this nineteenth century engineer had overseen the installation of gas lights in Savannah, Georgia.

With the signing of the Treaty of Guadalupe-Hidalgo the Mexican-American War came to an end, and the reasons for a defensive fieldwork above Santa Fe also ended. The initial goal of seizing Santa Fe and then maintaining order among its newly conquered inhabitants gave way to providing protection from Navajo, Ute, and Apache raiding parties. At the same time, typical of the United States' efforts to cut its military budget following the conclusion of any war, Congress brought pressure on Charles N. Conrad, President Fillmore's Secretary of War, to reduce the army's costs, especially in New Mexico, now called the Ninth Military Department.

Conrad, in turn, instructed Lt. Col. (Brevet) Edwin Vose Sumner, the commander newly assigned to the department, to "revise the whole system of defence" (Frazer 1963:xvi). Already

aware of some of the conditions in New Mexico through Col. George A. McCall's report of his inspection of the department in 1850, Conrad included some of McCall's recommendations in his orders to Sumner. Especially compelling to Conrad was McCall's insistence that if the Indian threat were to be stopped forts must be located "in the heart of Indian country" and troop strength must be "in sufficient strength to awe the Indians" (Conrad 1851:26). Recommending troop strengths for each post in New Mexico, McCall allowed but a single infantry company of eighty-four men for Santa Fe. Envisioning future conflicts based upon the abilities of "mounted riflemen," which he saw as a less expensive alternative than the cavalry, McCall completely ignored the defensive installation, Fort Marcy, in his report.

Within months of McCall's report, Conrad instructed Sumner to determine locations for forts in New Mexico based on three considerations. First, the forts were to protect New Mexicans; second, they were to defend against Indians, including those raiding into Mexico (a provision of Guadalupe-Hidalgo); third, they were to emphasize "economy and facility in supporting the troops, particularly in regard to forage, fuel, and adaptation of the surrounding country to cultivation." Above all, Conrad urged Sumner to "reduce the enormous expenditures . . . particularly in the quartermaster's and subsistence departments" (Frazer 1963:xvi).

Under orders to promote efficiency, when Sumner arrived in Santa Fe he quickly determined to withdraw troops quartered in New Mexico's towns, removing them to Fort Union, which he established in 1851. Although he decided to leave an artillery company in Santa Fe and, by 1852, determined that it was expedient to return the departmental headquarters to the territorial capital, he deplored the city as an army post, labeling it "that sink of vice and extravagance" (Frazer 1963:xvi). Later that year, Major Thomas Swords, assistant quartermaster, also inspected New Mexico. Accompanied by Sumner as he made his inspection, he too was aware of the need to cut the costs of quartering troops and forage and also recommended removing garrisons from the towns. Noting that the army owned a "secure storehouse" in Santa Fe and that a company of artillery remained there, however, he urged retaining the facilities "until proper storehouses were provided [elsewhere]" (Swords 1851:238). The prospects of Santa Fe remaining an army town were further undermined when the army's Report of the Colonel of Ordnance also noted that a permanent arsenal, recently established at the new Fort Union, should replace the "temporary depot . . . at Santa Fe" (Craig 1851:450).

By 1853, when Col. Joseph King Fenno Mansfield made his inspection tour of western forts, the role ascribed to the fort on the hill was minor. Describing it as having "no suitable quarters," he deemed it as "only fit to be occupied in time of war" (Frazer 1963:41). He did, however, include a drawing of the fort in his report, which remains its most detailed depiction other than Gilmer's plans and, with its representation of fourteen embrasures, helps to account for the disparity that occurs in accounts of the fort's armaments. Rather than on the fort, Mansfield focused his report on the post northwest of the Palace of the Governors where the army's hospital, gardens, and storehouses and department headquarters came to be known as Fort Marcy. In 1856, when he arrived in New Mexico as United States Attorney for the territory, W. W. H. Davis described the town, noting the imported institutions and architectural styles that had taken hold. To the northeast, Davis noted "the ruins of old Fort Marcy, built during the late war with Mexico, but which has not been occupied since the conclusion of peace" (Davis 1938:42).

No references to the fieldwork were found in accounts of Santa Fe during the Civil War. The Union army's abandonment of Santa Fe as indefensible suggests that whatever defensive capabilities the fort was thought to have possessed fifteen years earlier were no longer deemed adequate. When the army issued Special Orders No. 91 on Sept. 25, 1867, directing the abandonment of Fort Marcy, the caretaker detail at the fieldwork was also withdrawn. That same year the first known photograph of the hilltop fort, depicting it in the background of a picture taken of the post's headquarters, reveals the southwestern salient seemingly intact. Later, in 1875, when the post behind the Palace of the Governors, then known as Fort Marcy, was reestablished, the fieldwork was not. In effect, Fort Marcy, the fieldwork, had a military life of twenty-one years. Measured in terms of the active role it played in the military events that occurred in New Mexico, it was considerably less, not so much a fort as a brief, transitional symbol of conquest.

Broadening Santa Fe's Historic Context

The last decades of the nineteenth century saw the cultural imperial expansion that Meinig discusses move ahead in Santa Fe. The fort as a representation of American authority gave way to Greek and Gothic Revival style buildings, the coming of the railroad, and a gradual reordering of the landscape that began to give Santa Fe an appearance typical of small towns elsewhere in the country. Fort Marcy deteriorated, offering children like Marion Sloan Russell a playground to indulge their fantasies as they hunted for exposed bones and climbed among the ruins (Russell 1954:48). So removed was the fort from the changing town that one bird's eye view of the city simply omitted it and another map portrayed it peripherally.

In 1880, however, L. B. Prince and W. T. Thornton acquired the property from Gaspar Ortiz y Alarid. Following a series of claims and court cases revealing forgery and an incorrect location of the Roque Lovato Grant, by 1901 Prince and Thornton were able to file a quitclaim deed on the property and hold it (Wozniak 1992:10). During this period, one final reference to the fort appears in a note about the observatory at Old Fort Marcy burning to the ground in 1883 and a $100 reward being offered for the capture of the arsonists (Sheldon 1883: TANM, roll 22, frame 53). The archaeological investigations at the blockhouse, which was hypothesized to be the observatory, however, revealed no notable evidence of carbon, and whether the blockhouse was also the observatory remains unresolved.

It wasn't until statehood and the concurrent move to develop tourism that the leaders of Santa Fe began to revisit Fort Marcy. In 1911, as the editors of the *New Mexican* sought to prompt city leaders to promote the city, they likened it to Athens, arguing that it was the Acropolis "with its magnificent buildings" that gave Athens its "crown of beauty" (Aug. 24, 1911). Likewise, they urged, Santa Feans should look to Fort Marcy and its "bold promontory" as the site for city's "architectural adornment." Advocating that the city should eventually construct "public buildings and monuments" there, the writer suggested that in the meantime it might plant a grove of trees under which a "summer school of archaeology," Chautauqua meetings, or a public playground be established.

Prince himself began promoting the site, publishing a pamphlet entitled "Old Fort Marcy" in which he offered readers a description of the panoramic view the hilltop offered (Prince 1912).

That same year he also made improvements on the property, building a road up to the fort and landscaping the road with trees. Unfortunately, just as lack of water had challenged those making adobe bricks for the fort, the same lack of water caused many of Prince's trees to die (*New Mexican,* July 27, 1912). Although the account of Prince's improvements makes no mention of treating the site as a public park, the references to public visitation imply, at least, his willingness to share the site. During the same year, the Santa Fe Planning Board released its report on proposed improvements for the city (Santa Fe City Planning Board 1912). Composed of several of the city's cultural and political leaders, including Bronson M. Cutting, Edgar L. Hewett, Celso Lopez, Sylvanus G. Morley, Miguel A. Otero, and Arthur Seligman, the board advocated promoting tourism as a way of overcoming the city's economic decline, a chronic condition begun when the Santa Fe Railroad bypassed the city in 1880. Included in its list of assets for tourists were the city's old streets and architecture, the plaza and Palace of the Governors, and Fort Marcy, which the board proposed for restoration.

These early efforts to include Fort Marcy in the telling of Santa Fe's history reflect a more linear perspective of history shared by that generation of Santa Fe's cultural leaders than the more selective perspective that followed. Composed of both the city's Spanish-American and Anglo (the term had just begun to appear) elites, these leaders tended to view the city's history as a progression of events. Indicative of their perspective were the elaborate pageants staged on the Fourth of July. During these pageants events such as DeVargas' reconquest of Santa Fe of 1692 and Kearny's occupation of 1846 were reenacted. These leaders also chose to reenact Mexican Independence on its centennial in 1921 and, in 1920, dedicated the Cross of the Martyrs, just below the fort, commemorating the twenty-one Franciscan priests killed in the 1680 revolt. While their rhetoric today seems overtly boosterish, and while the pageants they sponsored seem excessively commercialized, those shortcomings should not preclude recognizing their efforts at historical inclusiveness.

As the 1920s progressed, however, this broad approach to Santa Fe's history, contrived as it sometimes was, gradually narrowed. Encouraged by the success of the replica of Acoma's San Estevan Church as the new state's exhibition building at the Panama-California Exposition in San Diego in 1915, Santa Fe's new generation of cultural leaders increasingly began to treat the city's past more selectively. Some of these leaders, such as Witter Bynner, Dolly Wall Sloan, and Mary Austin, advocated remaking the city's image emphasizing its romantic pre-American history. The "imperial geography," of diverse imported architectural styles, for example, was rejected in favor of what today is termed the Spanish-Pueblo revival. Ironically, even as they parodied tourism and the solemnity of the earlier pageants during events such as the Hysterical Pageant and, then, their creation of Zozobra, the city continued to draw visitors.

The "City Different," as Santa Fe was already terming itself, had become a destination offering a distinctive, now officially endorsed, regional architecture, Indian Detours (1926), and an illustrious past replete with ancient pueblos, conquistadors, and a nascent art colony. Notably missing from this revised panorama of the past were events associated with the Mexican and American periods. Symptomatic of this change, the reenactment of Kearny's entry was dropped in 1927. When the National Old Trails Highway Association, working with the Daughters of the American Revolution, offered the city one of several statues they were distributing to commemorate the trails of the westward movement, Santa Fe's leaders chose to reject it. The

"Madonna of the Trail" was then offered to Albuquerque, which accepted it, placing it along what was then U.S. Route 66.

These efforts at tailoring Santa Fe's history ignored Fort Marcy. This first symbol of American conquest ran against the romantic current shaping the city's self-portrait of its past. In fact, it wasn't until the 1950s that historians began to reexamine Fort Marcy. Beginning with Robert Utley's efforts, interest in Fort Marcy increased (*New Mexican,* Jan. 25, 1959). Over the next few years John Porter Bloom, Bruce Ellis, William Brown, surveying the site for the National Park Service, and John Gaw Meem voiced their support for trying to find ways of presenting the site to the public (*New Mexican,* August 12 and 13, 1963; Forrest 1963). While its advocates differed on what form the presentation would assume, suggesting approaches from partial excavations to a complete restoration of the fort, all agreed that the site was important and should no longer be ignored. After all, they argued, the site is the only extant fort on American soil dating to the Mexican-American war, and it is the first American fort in what became the Territory of New Mexico, and it did symbolize the expansionism that drove the westward movement. When the heirs of L. B. Prince offered the site to the city with the provision that its past be interpreted, the *New Mexican* supported the idea, beginning and ending its editorial with the question, "What are we waiting for?" (August 14, 1963).

More than thirty years later, the City of Santa Fe may be in a better position to answer that question. The City has used its resources to complete three archaeological and historical investigations of Fort Marcy. This essay has attempted to broaden the perspective with which Fort Marcy may be viewed. Certainly, the arguments already offered by Bloom, Utley, and Wilson convey the importance of the fort to understanding the Mexican-American War, American expansionism, and a military dimension of the Santa Fe Trail. The additional information gained by this project's investigations offers an opportunity to revisit Fort Marcy and to see it with a broader, perhaps more insightful, perspective.

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APPENDIX C:

Lithic Artifact Analysis (James Moore)

Lithic Artifact Analysis

by James Moore

Tables 1–4 summarize the results of the lithic analysis by provenience, material type, and artifact type. The assemblage seems to represent part of an Anasazi chipped stone assemblage. While a few artifacts were damaged in a way reminiscent of strike-a-light use, none of the damage was extensive enough for this suggestion to be definitive, and no metal stains or adhesions were observed on any artifact. This suggests that the damage was either related to prehistoric use (which seems unlikely), or it represents postdepositional damage. If the latter, it could have been caused by materials from the underlying prehistoric site being used to build the fort, but again, this is impossible to determine for certain.

Most of the artifacts in this assemblage are various types of red chert. Most appear to be within the range of variation for Madeira chert, but I could not make this determination in all cases. The artifacts categorized as Madeira chert are similar to the coarse-grained variety I have seen at one particular quarry location, and therefore they are pretty definitely evidence for local procurement. Many of the other red cherts had similar cortex (often grading into a limestone), so most of them are probably also Madeira chert.

Pedernal chert was moderately common, and all cortical pieces had waterworn cortex. These materials undoubtedly were procured from gravel deposits along the Rio Grande or one of its former channels.

Though not all quantifiable, there seemed to be quite a bit of postdepositional damage to the assemblage as a whole. However, it was not possible to determine whether this was related to natural processes or later when the fort was built.

The percentage of cherts in this assemblage is absolutely too high. I have never seen such a high percentage, except perhaps at a quarry. Since this location was not a quarry, I can only guess that much of the chipped stone was not recovered.

Only 10% of the debitage assemblage is cortical; this is a very small percentage, much smaller than expected. As expected, however, all Madeira chert with identifiable cortex type is nonwaterworn, and all identifiable cortex on Pedernal chert artifacts is waterworn. This suggests that Madeira and many of the other cherts (especially the other red cherts that may be Madeira) were procured from or near their source, whereas Pedernal chert was probably all from Rio Grande gravel deposits.

Obsidians: only two pieces of debitage with cortex were recovered; both are waterworn so probably from Rio Grande gravels. Three pieces of obsidian debitage were from the Polvadera source; no others were identifiable.

Thermal alteration: 22 pieces of debitage exhibit thermal alteration. This is only 3.6% of the assemblage, so the proportion is not particularly high. Much of the thermal alteration appears to have

been inadvertent. For example, at least three core flakes have potlids on their ventral surfaces, which is indicative of thermal alteration occurring after removal from a core. Four additional pieces of debitage were darkened as though burned, which is also probably evidence of inadvertent thermal alteration.

Bipolar reduction: two cores and one core flake had characteristics suggesting bipolar reduction. In none of these three cases, however, is the identification certain.

Strike-a-light flints: three artifacts display wear patterns that could have been caused by strike-a-light use. However, in no case was the wear distinct enough to be assigned to this type of use with any certainty. No metal adhesions were noted on these artifacts; in fact, no metal stains were seen on any artifacts in the assemblage. Thus, the wear on these three artifacts may have been caused by attempts to remove flakes from very small cores.

Table 1. Lithic artifacts from Trench A

Material	Core flakes	Biface flakes	Angular debris	Cores	Projectile points	Bifaces	Other	Totals
Madeira chert	48	–	27	1	–	1	1 uniface	78
Pedernal chert	16	1	10	–	–	1	–	28
Other cherts	146	–	77	3	–	1	1 potlid	228
Obsidian	3	–	5	–	2	1	–	11
Silicified wood	3	–	1	–	–	–	–	4
Rhyolite	–	–	1	–	–	–	–	1
Siltstone	2	–	1	–	–	–	–	3
Basalt	1	–	–	–	–	–	–	1
Quartzite	1	–	1	–	–	–	–	2
Total	220	1	123	4	2	4	2	356

Table 2. Lithic artifacts from Trench B

Material	Core flakes	Biface flakes	Angular debris	Cores	Projectile points	Bifaces	Other	Totals
Madeira chert	17	–	8	1	–	–	–	26
Pedernal chert	8	–	4	1	1	–	–	14
Other cherts	84	–	46	3	–	1	–	134
Obsidian	–	1	–	–	1	2	–	4
Siltstone	6	–	–	–	–	–	–	6
Total	115	1	58	5	2	3	0	184

Table 3. Lithic artifacts from Trench C

Material	Core flakes	Biface flakes	Angular debris	Cores	Projectile points	Bifaces	Totals
Madeira chert	6	–	1	1	–	–	8
Other cherts	2	–	1	–	–	–	3
Silicified wood	1	–	–	–	–	–	1
Total	9	–	2	1	–	–	12

Table 4. Lithic artifacts from Test Pit D

Material	Core flakes	Biface flakes	Angular debris	Cores	Projectile points	Bifaces	Totals
Madeira chert	9	–	8	3	1	–	21
Pedernal chert	1	–	–	–	–	–	1
Other cherts	41	–	22	2	–	2	67
Obsidian	1	–	1	–	–	1	3
Limestone (?)	1	–	–	–	–	–	1
Total	53	–	31	5	–	3	93

APPENDIX D:

Analysis of Faunal Remains (Linda S. Mick-O'Hara)

Analysis of Faunal Remains

by Linda S. Mick-O'Hara

Excavations at the Fort Marcy site (LA 111) resulted in the recovery of 92 bone elements and fragments. The faunal remains recovered are related to both the prehistoric and historical occupations of that area. The recovery context of these remains precludes separation of the two assemblages, but suggestions about this division will be provided when possible.

The 92 bones were assigned to one of the following categories: one order, one combined genus, one genus, and four species. Long bone fragments and other fragmentary remains were assigned to the class of mammals and could be size-graded by the thickness of cortical tissue into small, medium, and large mammal categories. Table 1 presents the taxonomic designation and identified elements for all the remains recovered. Fifty-six bone fragments (60.9% of the sample) could be assigned only to class and size-grade; the remaining 36 pieces of bone were assigned to more specific taxonomic levels.

The assemblage is dominated by medium and large mammal remains, but two small wild species provide evidence for the use of small mammals by the occupations at LA 111. A single mandible fragment was identified as *Cynomys gunnisoni* (Gunnison's prairie dog) and six elements could be assigned to *Sylvilagus audubonii* (desert cottontail) (Table 1). All of these elements exhibited evidence of burning and were probably part of the diet of the occupants of the prehistoric component at LA 111. The carnivore impact on two of the cottontail elements suggests that deposits were affected by scavenging from dogs or coyotes in the area.

The remainder of the identified faunal assemblage attests to the use of medium and large mammals by both the prehistoric and historical site occupants. Only a single rib fragment indicates the presence of cattle in the assemblage. Artiodactyl remains identified as sheep/goat (*Ovis/Capra*) and deer (*Odocoileus* sp.) indicate that these species were used by the multiple occupants of the area. The deer remains were unburned, and all exhibit impact fractures or evidence of longitudinal splitting. This pattern would be consistent with that seen in prehistoric sites and suggests that these remains, along with those of the small mammals, were part of the prehistoric component at the site. This is supported by the occurrence of four bone awls made of large mammal long bone. Two of the awls were clearly modified deer metapodials that had been grooved and split longitudinally in the process of producing these tools. The tips of these awls were broken, but the other two in the assemblage were fine-point awls typically used for basketry and in working with animal skins.

The sheep/goat remains and the single scapula that could be identified as domestic sheep (*Ovis aries*) (Boessneck 1970) exhibited evidence of impact fractures and splitting from axe butchering. This finding is consistent with other observed historical butchering patterns in which sawn bone can be observed very late in the record and sheep tend to be axe butchered even late in the territorial period, probably due to their relatively small size and the ease of using an axe rather than a saw in processing these animals (Mick-O'Hara n.d.).

Most of the remains assigned to sheep/goat were burned brown or black. This thermal alteration of

bone occurs when bone is burned while still covered with flesh (Buikstra and Swegle 1989). This pattern is consistent with roasting and the occasional disposal of bone fragments into or near cooking areas.

The faunal assemblage from Fort Marcy appears to be a mixed prehistoric and historical assemblage. The prehistoric component probably contributed the deer and small mammal remains along with the four bone awls mentioned above. The historical component probably contained the cattle and sheep/goat remains, which also provide evidence of the use of roasting at the historic fort.

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Table 1. Faunal Remains by Taxonomic Frequency and Element for LA 111

Taxon	Element	Number
Small mammal	indeterminate	1
Medium mammal	long bone fragment	29
	vertebra	1
Large mammal	long bone fragment	23
	rib	2
Cynomys gunnisoni (Gunnison's prairie dog)	mandible	1
Sylvilagus audubonii (desert cottontail)	mandible	1
	single pelvis	2
	ulna	2
	femur	1
Order Artiodactyla	tooth	2
	carpal	1
	femur	1
	tibia	1
	metatarsal	1
	rib	1
Odocoileus sp. (white-tailed deer)	vertebra	3
	scapula	1
	ulna	2
	metacarpal	1
	netatarsal	1
Bos taurus	rib	1
Ovis aries	scapula	1
Ovis/Capra	cranial complex	1
	mandible	1
	rib	1
	scapula	2
	metacarpal	1
	femur	2
	tibia	1
	tarsal	1
	phalange	2
Total		92

APPENDIX E:

Analysis of Corncobs from Prehistoric Levels (Mollie S. Toll)

Analysis of Corncobs from Prehistoric Levels

by Mollie S. Toll

The prehistoric *Zea mays* collection under study came from levels underlying Fort Marcy, a nineteenth century military installation in Santa Fe, New Mexico. Association with Anasazi lithic and ceramic debris suggests the material antedates construction and occupation of Fort Marcy. Macrobotanical corn remains from LA 111 consisted of charred corncob fragments and a single shank. Table 1 lists an initial inventory of the specimens by number, weight, and condition, and by grid (B4, B5, or B6) and stratigraphic level (A to U).

Cob specimens possessing a full circumference were considered measurable for the purposes of this study (Toll and Huckell 1995). Number of kernel rows was counted around the circumference away from base or tip regions, where row irregularity can occur. Row number is certainly the most widely noted trait in the literature, due to how easily and consistently it can be determined, and freedom from distortion by carbonization and erosion. Variable erosion of glumes (the papery structures surrounding individual kernels) can have a significant effect on cob diameter and cupule dimensions. Consequently, small areas on opposite sides of each cob were cleared of glumes with a probe, and several dimensions free of glumes were recorded.

Cob diameter and rachis diameter were measured to characterize gross size, which can vary considerably depending on genetic characteristics and growing conditions. *Cob diameter* was measured with metric vernier calipers as "the distance across the cob from the apex of one lower glume to the apex of the lower glume of the alicole directly opposite" (Benz 1981:32); though certainly affected by erosion, it is included for comparison with older studies. *Rachis diameter* was determined as "the largest diameter found by measuring across opposite cupule wing tips . . . in the zone cleared of chaff" (Bird 1994:17), or as "distance across the cob from the base of an upper glume on one side of the cob to the base of an upper glume directly opposite" (Sanchez 1989:49). *Rachis segment length* was measured through a binocular microscope at 10x, with an ocular micrometer, as the distance along the long axis of the cob occupied by a single cupule, measured from any given landmark (glume base, cupule lip, rachilla) to the next same landmark. *Cupule width* was measured in the same manner as "the distance from the exterior margins of the cupule wings oriented perpendicular to the axis of the cob" (Benz 1981:33), and *cupule height* as the interior dimension of the cupule, along the axis of the cob. Morphometrics of 42 measurable cob specimens are presented in Table 2.

Parameters of the Fort Marcy corn point solidly to late prehistoric corn types (for instance, the preponderance of 12-rowed ears, and the slender cobs) and away from attribute departures that mark the appearance of Spanish introductions from Mexico (e.g., lack of significant numbers of 14-, 16-, and 18-rowed cobs, and lack of broad, flat cupules). There are some interesting differences between lower and upper levels of deposits. Corn from the lower levels are more eroder and fragmentary (Table 3), which may explain some smaller and more variable dimensions (Table 4). Theoretically, only cob diameter should be affected by degree of erosion, but I suspect not all of the variability

between the two stratigraphic zones is real genetic differentiation. This patterning would be of great interest in relation to a data base of Santa Fe area *Zea* over a broad range of time, if such information only existed.

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Table 1. Inventory of Corn Remains, LA 111

	Measurable Cobs					Unmeasurable Cob Fragments		Shanks	
Provenience	Intact Glumes	Partially Eroded	Eroded	N	Weight (g)	N	Weight (g)	N	Weight (g)
B4-AN	4	10		14	16.8	33	9.2	1	0.6
B5-L		4		4	4.2	6	1.1		
B5-N		6		6	10.0	27	7.4		
B5-R		1	5	6	4.2	15	5.0		
B5-TU			11	11	9.3	55	9.8		
B6-M	1			1	2.0				
Total	5	21	16	42	46.5	136	32.5	1	0.6

Table 2. *Zea* Cob Morphometrics, LA 111

		Rows			Glumeless Dimensions			
	Cob portion	N	Type	Cob diameter	Rachis diameter	Rachis segment length	Cupule width	Cupule height
B4-AN	M	12	St	20.4	13.8	4.8	6.5	1.7
	M	8	St	17.1	11.3	4.7	9.5	2.0
	M/T	12	St/UD	16.4	12.7	3.7	5.2	1.2
	M	12	St/UD	18.0	14.3	4.0	6.9	1.3
	M	8	St	9.2	7.0	3.5	5.1	1.0
	M?	12	St?	10.9	7.9	4.0	4.7	1.3
	M	12	St	15.7	10.3	3.7	6.8	2.1
	M	12	St	10.3	8.8	3.9	4.5	1.5
	T?	12	UD/IR	16.0	12.8	4.8	7.1	2.0
	T?	14	UD/IR	15.5	11.8	2.8	4.9	0.8
	M	10	St	14.5	10.7	3.4	6.8	0.3
	M	10	St	16.7	13.5	4.0	8.8	0.8
	M	14	St	17.1	12.3	3.4	5.5	1.0
	M	12	St	16.1	11.1	3.0	6.9	0.6
B5-L	M	12	St	15.0	10.9	3.4	7.2	1.0
	M	12	St	14.9	11.3	2.9	5.8	0.9
	M	10	St	15.5	11.3	3.2	6.0	0.5
B5-N	M	12	St	12.7	11.4	3.1	5.6	0.4
	B	14	St/IR	18.3	12.9	3.3	6.4	0.7
	B	14	St/IR	14.3	10.1	3.6	5.0	0.6
	M	12	St	16.6	11.6	2.7	6.3	0.3
	M	10	St	13.9	11.5	4.2	6.8	0.9
	M	12	St	13.7	11.6	3.6	6.9	0.1
B5-R	M	12	St	14.9	10.4	4.0	5.6	1.2
	M	12	St	12.6	10.2	3.7	5.3	1.0
	M	8	St	11.1	7.3	3.5	5.5	1.8
	M	14	St	10.3	6.9	2.7	4.0	1.5
	M	10	St	10.8	8.7	3.3	5.1	1.1
	M	12	St	10.4	7.7	3.0	4.7	1.0
B5-TU	M	12	St?	10.5	7.7	2.0	4.4	0.5
	M	12	St	12.5	8.3	3.3	5.8	1.1
	M	12	St?	16.6	13.5	3.5	6.4	1.2
	M	12	IR	15.4	10.7	2.8	6.6	0.8
	M	12	St	12.4	9.3	3.1	5.0	0.9
	M	12	St	9.6	7.0	3.0	4.0	1.5
	M	12	St	16.8	14.0	3.2	6.3	0.9
	M	12	St	9.9	9.2	3.4	4.3	0.4
	M	8	St	15.1	10.2	4.5	7.0	1.8

		Rows			Glumeless Dimensions			
	Cob portion	N	Type	Cob diameter	Rachis diameter	Rachis segment length	Cupule width	Cupule height
	M	12?	IR	14.7	11.4	3.7	7.7	0.4
	M	12	St	9.7	6.5	2.2	4.8	1.1
B6-M	M	12	St	17.8	15.1	3.8	7.8	0.9

Table 3. *Zea* Specimen Condition by Stratigraphic Level, LA 111.

	Erosion Value	Weight Ratio (measurable cobs/ fragments)
Upper Levels A–N [$n = 25$] B4-AN B5-L B5-N B6-M	1.8	2.0
Lower Levels R–U [$n = 17$] B5-R B5-TU	2.9	0.9

Erosion value is an artificial value representing the average of individual specimens, where specimens with intact glumes are given a value of 1, partially eroded specimens = 2, and eroded specimens = 3.

Table 4. *Zea* Cob Morphometrics by Stratigraphic Level, LA 111

	Number of Rows					Mean Dimensions (mm)				
	8	10	12	14	mean	Cob diameter	Rachis diameter	RSL	Cupule width	Cupule height
Upper Levels A–N [n = 25]	8%	16%	60%	16%	11.6	15.2 .169 cv	11.5 .161 cv	3.6 .174 cv	6.3 .194 cv	1.0 .560 cv
B4-AN										
B5-L										
B5-N										
B6-M										
Lower Levels R–U [n = 17]	12%	6%	76%	6%	11.5	12.5 .201 cv	9.4 .236 cv	3.2 .190cv	5.4 .198 cv	1.1 .393 cv
B5-R										
B5-TU										

RSL: rachis segment length

APPENDIX F:

Old Fort Marcy. FORT MARCY HILL, SANTA FE, NEW MEXICO: The Prehistory and History of the Site and an Inventory of Records Regarding the Use of the Site (Frank E. Wozniak)

OLD FORT MARCY

FORT MARCY HILL, SANTA FE, NEW MEXICO:
The Prehistory and History of the Site
and an Inventory of Records
Regarding Use of the Site

by Frank E. Wozniak

Note: This report was prepared for the Planning and Land Use Department of the City of Santa Fe under a grant from the New Mexico Historic Preservation Division and the National Park Service. It has been retyped for inclusion as an appendix in the 1996 report. The original, on file at the city's planning office, also contains copies of numerous documents not reprinted here.

Acknowledgments: The author wishes to acknowledge the assistance of several individuals whose help was invaluable in the completion of this project. Linda Tigges conceived and administered the project for the Planning and Land Use Department of the City of Santa Fe; throughout the endeavor, she ensured that every assistance was provided. Orlando Romero, Cordelia Snow, and Arthur Olivas of the History Library, Museum of New Mexico, guided me to many areas of information important for my research and provided personal insights on Fort Marcy. Richard Salazar and his staff at the State Archives generously guided me to their numerous collections, including the papers of L. B. Prince and R. E. Twitchell. Michael Miller and the staff at the Center for Southwest Research, University of New Mexico, once again facilitated my research in their collection even while in the midst of relocation of the center. Michael Meyer, Branch of Military Records, National Archives (Washington, D.C.) was extremely generous of his time in securing the records of the Chief of the U.S. Army Corps of Engineers. The Southern Historical Collection, University of North Carolina at Chapel Hill provided access to the Lenoir Family Papers, which contain correspondence between Lieutenant Gilmer and Captain Welcker.

In order to clarify the many issues related to the archaeology of Fort Marcy Hill, I talked with Regge Wiseman, Cordelia Snow, David Snow, Curt Schaafsma, Rosemary Talley, Jim O'Hara, and Linda Tigges about what was known and what was suspected about the archaeological resources in the area around Old Fort Marcy. Without their help, the section on archaeology in this report could not have been written.

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Introduction

The purpose of this report is to present the results of research on the archaeology and historical use of the Old Fort Marcy site in Santa Fe, New Mexico. The research involved an archival search for all relevant records and documents regarding the prehistory and history of the site. That research was carried out primarily at the History Library, Museum of New Mexico (Santa Fe); State Archives and Records Center (Santa Fe); Planning and Land Use Department, City of Santa Fe; Center for Southwest Research, University of New Mexico (Albuquerque); National Archives (Washington, D.C.); and Southern Historical Collection, University of North Carolina at Chapel Hill. Inquiries were also carried out with the Huntington Library (San Marino, California) and the Bancroft Library, University of California at Berkeley; these two archives do not appear to contain any materials on Fort Marcy that are not already available in New Mexico.

The project provides the city with an inventory of prehistoric and historical data, existing conditions, and maps from which a long-range plan for the Fort Marcy area can be developed. Copies of all known and relevant references to prehistoric and historical activities on the site are provided; copies of all known photographs, maps, and site plans have been gathered, as well as other information intended to elucidate the questions surrounding the boundaries of the site. Because of the prior and continuing interest of the city in the site area, the Public Works Department has currently in its possession all existing property maps and real estate plats related to the legal boundaries of the city's property on Fort Marcy Hill which encompasses the site of Old Fort Marcy. Discussions with Albert Trujillo of Public Works have ensured that the city- and privately-owned portions of the site are represented on the city's maps.

This report first discusses the archaeology of the site area and examines the limited information available on prehistoric uses of the site. Because very little is known directly about the prehistory of the Old Fort Marcy site, the report relies on archaeological information from adjacent and associated areas. The historical uses of the site area are better known. That section of the report looks into the complex question of the historical burials on Fort Marcy Hill and suggests that the testing of the site area is absolutely vital in order to delineate and clarify the multiplicity of indications of extensive use of the site area for human burials in the early to mid nineteenth century and possibly as early as the late seventeenth century.

The second section of the report examines the history of the construction of Fort Marcy in 1846–1847. That discussion relies on contemporary sources including the correspondence of Lt. J. F. Gilmer, U.S. Army Corps of Engineers, who supervised the construction from August 1846 to June or July 1847. These sources along with contemporaneous maps provide a good picture of the building of the fort and what was actually constructed on Fort Marcy Hill. The final part of this section of the report looks at the events surrounding the gradual deterioration of this earth-and-adobe fieldwork from the mid 1850s to the present.

The Archaeology of the Old Fort Marcy Site

The prehistory of the immediate area surrounding the site of Old Fort Marcy is not well documented and must be reconstructed largely on the basis of extrapolations from archaeological work in adjacent areas. Much of what has been previously said about the site area has been rather conjectural. In 1910,

Edgar L. Hewett asserted that in the prehistoric period "there would have been seen on what we call Fort Marcy Hill, an Indian town of considerable size, consisting of one large terraced pueblo and one or more smaller buildings, nearby, a kiva or sanctuary of the circular subterranean type in the bench halfway down the hill site" (Elliot 1988:50). By the time that Hewett saw Fort Marcy Hill, the only mounds that would have indicated occupation of the site were those from the partially reduced walls and blockhouse of Fort Marcy itself. While evidence of prehistoric use of the summit and slope of Fort Marcy Hill has come to light both before and after Hewett, those finds have indicated a far less grandiose utilization than Hewett's terraced pueblo and associated kiva. In fact, nothing has yet been discovered at or on Fort Marcy Hill to sustain Hewett's conjectures. Nonetheless, Hewett's proposal of a prehistoric pueblo "under the foundations of Fort Marcy" was shared by his contemporary, Ralph E. Twitchell. In the same year as Hewett, Twitchell (1910) claims that the "remains of the Pueblo site were used in the construction of the Fort." Unfortunately, there are no indications in the records of the construction of the fort to sustain such a conclusion; Twitchell appears to have been unacquainted with crucial records of that construction and to have made poor use of those records with which he was familiar in order to have proposed that the remains of a pueblo were used in the construction of Fort Marcy.

The first excavations at the Fort Marcy site were carried out under the supervision of Lt. J. F. Gilmer, U.S. Army Corps of Engineers, in the early fall of 1846 (see the letters of Gilmer to Captain Welcker and to Colonel Totten, 1846 and 1847). While not formal archaeological investigations, they do provide us with the first and only subsurface evidence bearing on Hewett's and Twitchell's proposal of a prehistoric pueblo on Fort Marcy Hill. George R. Gibson, who was a soldier with the Kearny expedition and who witnessed the construction of Fort Marcy in the fall of 1846, described certain excavations within the fort (Gibson 1935:237, 260). On September 14, 1846, an army work detail dug up a large number of bones with some coffins while excavating to a depth of five or six feet for the fort's magazine (Gibson 1935:237). Gibson noted that as deep as their excavation reached in that particular location, the soldiers found bones and some coffins mixed with ash and charcoal. The bones were well preserved due to the dry soil in which they had been buried. Gibson also noted with regard to those bones that the site of the magazine was said to have been an Anglo-American graveyard. Thus, at the location of the fort's magazine, historic Anglo-American graves were encountered in an ash and charcoal matrix as deep as five or six feet below the ground surface. In late October 1846, as excavations of the dry moat surrounding the fort continued and as work began at the site of the blockhouse or outwork to protect the approach to the fort from the north, work details complained about the amount of dust at the site; Gibson (1935:26) noted that even at seven or eight feet below the surface, the soil was completely dry. He stated that the site was more like an ash heap, with an abundance of loose soil mixed with ash, except at the surface where the soil was gravelly and hard. On October 21, Gibson (1935:260) reported that the work details continued to find skeletons scattered throughout their excavations in a number of places on the hill. To account for the presence of so many skeletons and for skeletons that were not Anglo-American and associated with coffins, he noted the local tradition that the Indians (e.g., Puebloans) and Spaniards had fought a battle on Fort Marcy Hill (Gibson 1935:260). The human remains being excavated at locales other than the magazine were evidently distinguishable from those located at the site in mid September; how this distinction was made and the criteria for it are unfortunately not provided by Gibson. Because the excavations were largely, if not exclusively, confined to the area of the dry moat, it would appear that Gibson documented the existence of a major burial site on Fort Marcy Hill which contained possibly early historical Puebloan and Spanish remains as well as Mexican period Anglo-American graves. The

excavation of a waterline and sprinkler system in the area north of the fort in the 1980s provided evidence of a paupers' cemetery (Regge Wiseman, personal communication), thus providing further evidence of historical burials at the Old Fort Marcy site. No archaeological investigations at Fort Marcy Hill, either on the top or sides of the hill, has yet produced any evidence of prehistoric burials. There is, however, evidence of some prehistoric use of the area (Snow 1989).

Evidence of prehistoric use of the general area is provided by archaeological work in areas adjacent to the site. Pitstructures have been found or reported on the lower slopes and benches below Fort Marcy (Ellis 1978; Snow 1989; Wiseman 1989; also James O'Hara, David Snow, Rosemary Talley, Linda Tigges, Regge Wiseman, personal communications). This prehistoric use is not directly connected with the Fort Marcy site but does indicate prehistoric use of the vicinity. Snow's 1989 investigations on the slope immediately adjacent to the fort and Lang's 1980 and 1981 surveys of the similar topographic structure between Arroyo Sais and Arroyo de la Piedra to the east of Fort Marcy Hill found several lithic and ceramic scatters associated with the uplands. At LA 21963, Lang (1980) recorded a small Pueblo III site consisting of three low earth and cobble mounds with an associated midden. Snow (1989) reported the presence of redeposited prehistoric ceramics and lithic artifacts in the western angle of the moat of Fort Marcy. No evidence of in situ or subsurface prehistoric materials was found in the moat area, but some evidence of activities associated with the construction of Fort Marcy in the mid nineteenth century was located on the slopes below the moat.

Other information regarding the Old Fort Marcy site might have been obtained in 1987–1988 during the construction of a ramp to provide access to the Cross of the Martyrs, which was itself built in the 1960s on the slope just below Old Fort Marcy (Okuma 1987). Archaeological monitoring was recommended by the New Mexico Historic Preservation Division (Gegick to Okuma 1987; James O'Hara, personal communication). Unfortunately, an important opportunity to gain information regarding the Old Fort Marcy site was lost. In his review of Santa Fe archaeology, Michael Elliot (1988:101) noted the following concerns of city planners and local archaeologists regarding the Fort Marcy site:

> Fort Marcy has suffered impacts from a number of sources: the "improvements" in the form of road and parking lot paving, and the installation of sprinkler systems for the landscaped vegetation; the long-term use of roads and trails across the extant features of the site; and the ongoing construction activities for the trail to the Cross of the Martyrs.

Suggestions regarding the use of Fort Marcy Hill before the construction of the fort in 1846–1847 range from the speculative to the concrete. Hewett and Twitchell mentioned the remains of a prehistoric pueblo on or under the site; there is no evidence from the excavations at the time of the construction of the fort or from the limited subsequent investigations in the area of the moat that such a site is buried under Old Fort Marcy. On the other hand, accounts contemporaneous with the construction of the fort indicate the presence of one or more historic burial areas at, under, or near the fort. The matter of these burial areas, which seem to appear wherever and whenever someone excavates on top of Fort Marcy Hill in the vicinity of the fort, itself presents the potentially most important archaeological and occupational question surrounding the Old Fort Marcy site. The questions of the extant and character of prehistoric utilization of the site should be investigated at the same time.

Though there is as yet no evidence that Hewett's and Twitchell's pueblo is located at or under Old Fort Marcy, and only limited evidence of prehistoric or protohistoric use of the site area, the hill appears to have played some role in the events of the Pueblo revolts of the late seventeenth century. During the Puebloan siege of Santa Fe in August 1680, Tewa, Taos, and Picuris Indians occupied the high ground to the north of Santa Fe on either side of the Tesuque Road. After a series of feints and maneuvers, the Puebloans ultimately occupied a hill which lay behind the house of Francisco Gomez (Hackett and Shelby 1942:15, 100). Based on the fact that Gomez's house lay at or near the northeastern corner of the plaza, Snow (1989) concluded that the referenced hill was Fort Marcy Hill due to its proximity and prominence. According to Governor Otermín, the Puebloans pitched camp on the hill (i.e., Fort Marcy Hill) and harassed the Spaniards by firing their harquebuses (matchlock firearms) into Spanish houses (Hackett and Shelby 1942:15, 101). The control of Fort Marcy Hill enabled the Puebloans to dominate the Spanish positions, to thwart Spanish counterattacks, and to provide assembly points for the Indians' assaults on the Spanish settlement during the time leading up to the Spanish evacuation of Santa Fe.

In Governor Vargas's reconnaissance of New Mexico in anticipation of the reoccupation of the province (September 1692), Fort Marcy Hill again was involved. While Vargas was negotiating with the Puebloan defenders of Santa Fe, a group of forty or fifty Puebloan reinforcements occupied the mesa at the right corner of the stronghold (i.e., Fort Marcy Hill). It later transpired that they were residents of the Pueblo of Santa Fe who were returning from a dance at Santa Clara (Espinosa 1940:90). The governor sent two squads of men to block their position. Vargas himself later met the Indians on the mesa and negotiated the peaceful end of the Spanish blockade of Santa Fe (Espinosa 1940:92). These events of 1680 and 1692 that occurred on Fort Marcy Hill could be the source of local traditions regarding a battle between the Indians and the Spaniards on the hill which was reported in 1846 as the source of the skeletons discovered during the construction of Fort Marcy. The only occasions for such a confrontation were in the era of the Pueblo revolts.

While Fort Marcy Hill essentially drops from sight in the historical records in the one and a half centuries between the Spanish reconquest of New Mexico and the Anglo-American conquest, evidence from a lengthy legal dispute in 1732 (SANM I 758) indicates that a well-traveled trail for hauling wood ascended the slope below, and eventually over, the hill (Snow 1989). Testimony at that time also suggested that the trail was one used by the Puebloans in their attack of 1680 on the community of Santa Fe, thus reinforcing the identification of Fort Marcy Hill in the events of the Pueblo revolts. Aside from its location on the trail, it appears from a review of Spanish colonial and Mexican period records that Fort Marcy Hill was not occupied historically before the construction of the fort itself. The problem of the claim of ownership based on the Roque Lovato grant of 1785 will be discussed below, but any claim of ownership of the hill under that grant was demonstrably fraudulent. Developments arising out of the construction of Fort Marcy, however, suggest that the hill was used in the Mexican period for the burial of Anglo-Americans.

Except for those unsuspected occupants, Fort Marcy Hill was vacant ground when Lieutenants Emory and Gilmer surveyed the hills of Santa Fe in August 1846 and proposed the location of a fort (Emory 1848; Gilmer to Totten, August 24, 1846). On August 19, 1846, shortly after the U.S. Army's occupation of Santa Fe, General Kearny ordered Lieutenant Emory (U.S. Army Corps of

between the widow of Roque Lovato and the predecessor of Jesus Rivera (who sold the alleged grant to Ortiz y Alarid in 1852) was a forgery. Not ones to let such a cloud remain over their title to a potentially valuable piece of Santa Fe real estate, Prince and Thornton were able to parley their local influence into a quitclaim deed to the property encompassing the Roque Lovato Grant from the City of Santa Fe in 1901 (Santa Fe County Deed Records, Book H-1, p. 138). This occurred very shortly after the city had received its own patent to the Santa Fe City Grant from the United States (Santa Fe County Deed Records, Book G-1, p. 612). By this sleight of hand, Prince and Thornton legitimized their fraudulent title to the site of Old Fort Marcy.

In 1883, the observatory at Old Fort Marcy was burned to the ground and a reward was offered for the capture of the arsonists (TANM, roll 22, frame 53). Which particular structure was burned is not known, but the report probably refers to some remaining structure at the blockhouse. In 1912, *The Eagle* published an article on Old Fort Marcy noting that the fort had been neglected for a long time and that the road to the site was in poor condition. In his own publication of 1912, Governor Prince reported that the walls of the fort retained their general form, having allegedly been little affected in the sixty years since their construction. However, Prince had recently begun improving access to the site by building a road from Washington Avenue to the fort that could be easily traveled by automobiles. A number of trees had also been planted along the road, but many had died due to the lack of water (city water was not available on the hill). In 1921, Prince deeded the site to the Historical Society of New Mexico to be used as a perpetual memorial to the New Mexican soldiers who had fought in wars of the United States, under the condition that the Historical Society spend five thousand dollars in three years on improvements to the property (Santa Fe County Deed Records, Book R-Misc., p. 607). Three years later, the title to the land reverted to Prince because the Historical Society failed to make the stipulated improvements.

During the 1930s, the Prince property above Santa Fe, including the Old Fort Marcy site, was considered for the location of the new state capitol complex but the Prince family refused to sell the property to the state. In the 1960s the state once again thought about acquiring the Prince property overlooking the city of Santa Fe for the new capitol but did not purchase it (*Albuquerque Journal,* April 24, 1963). A National Park Service report completed at that time noted that the Fort Marcy site itself had suffered few encroachments except for a dirt road from the Hyde Park Road and that the site was little changed since 1846 (on file, City Planning and Land Use Department). The author appears to have discounted a 1959 report from another National Park Service employee that the site was covered with trash. In 1963, the outline of the fort was still clearly visible, with mounds of earth several feet high marking the walls and a large mound indicating the placement of the blockhouse. The archaeology section of the present report shows that actions after 1963 and subsequent to the city's acquisition of the site from the Prince Estate in 1969 have had a significant impact on the integrity of Old Fort Marcy.

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APPENDIX G:

Results of Archaeological Investigations of Old Fort Marcy, Santa Fe County, New Mexico (John C. Acklen, ed.)

RESULTS OF ARCHAEOLOGICAL INVESTIGATIONS OF OLD FORT MARCY SANTA FE COUNTY, NEW MEXICO

provenienced, and all excavation units were plotted. Modern features such as park facilities, including parking lots and trails, roads, and other developments spatially related to the historic manifestations, were also mapped. In addition, surface anomalies that may represent features were documented. Additional laboratory mapping included digitizing historic maps of Old Fort Marcy and overlaying them on the field-generated topographic map to facilitate graphical reconstruction.

4.1.3 Test Excavations

Test excavations were conducted in feature areas and in featureless portions of the park. Testing techniques employed systematic exploratory excavations intended to determine the presence or absence of subsurface depositions not visible on the surface and, the vertical extent of any such deposits. Units were manually excavated and consisted of 23 0.2 m diameter hand auger tests and one 0.5 x 0.5 m shovel test. Fill from the units was screened through ¼-inch mesh, and results, including soil types and stratigraphy, were recorded. After excavation of the 0.5 x 0.5 m shovel test, a profile map showing the stratigraphic context was drawn and the unit was photographed. All subsurface artifacts encountered were collected. Finally, all units were backfilled after completion.

During the Fort Marcy project, the use of a backhoe was considered. The backhoe would have been helpful in characterizing the nature of deposits, especially in feature areas such as the ramparts, blockhouse, and moat. However, it was decided that mechanical excavation was too destructive of rich but inadequately characterized deposits. Furthermore, based upon background research, it was likely that human remains would be encountered. These remains would not have received the level of treatment they deserve given the limited scope of the current project.

RESULTS OF ARCHEOLOGICAL INVESTIGATIONS OF OLD FORT MARCY SANTA FE COUNTY, NEW MEXICO

Prepared for

The City of Santa Fe
Planning and Land Use Department
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ABSTRACT

The results of archeological investigations of the Old Fort Marcy site in Santa Fe County are summarized in the following report. Archeological testing was undertaken by Mariah Associates, Inc. between April 16 and July 29, 1994, at the request of the Planning and Land Use Department, City of Santa Fe, New Mexico. This fieldwork is the second phase of a three-phase project intended to provide the data necessary for long-term management of this important site.

The site was mapped, and limited test excavations were conducted. Test excavations revealed that the features visible on the surface appear to be all that remains of the historic fort. Little in the way of archeological deposits associated with the fort were detected. Test excavations indicated that the archeological record corroborates the historical record which clearly states that Fort Marcy was little used and never garrisoned. No evidence of a historic pauper's cemetery was encountered during testing although there is no reason to believe that remains are not present as reported historically. Abundant evidence of a large Pueblo II Anasazi site, however, was encountered. Artifacts were recovered that also indicate Pueblo IV and post-1600 Historic usage of the hill. Although the prehistoric component is heavily disturbed, the presence of intact deposits and Anasazi surface and/or pit structures is considered likely. Recommendations for further work include additional hand and mechanical excavation. Hand trench excavation is recommended in historic feature areas for the purpose of exposing profiles of historic features and locating undisturbed Anasazi deposits which are likely preserved beneath the fort. Mechanical trench excavation is also proposed as a search strategy for Anasazi pit architecture in areas outside the fort features.

2.0 ARCHEOLOGICAL AND HISTORIC CONTEXT

Unofficially but in practical terms, New Mexico became territory of the United States on August 18, 1846, barely three months after President James K. Polk declared war between the United States and Mexico. August 18 was the day on which American troops under the command of General Stephen Watts Kearny occupied Santa Fe, the capital of New Mexico (Keleher 1952:xxiii). Manuel Armijo, the governor and commanding general of New Mexico, publicly called for resistance and, in response, the militia and volunteers gathered in Apache Canyon to confront Kearny. However, in reality, Armijo had no desire to fight, probably realizing the futility of resistance. As Kearny's occupying army of 1,500 men approached, Armijo sent his militia home and fled for Chihuahua. Santa Fe offered Kearny no resistance (Wilson 1989:104).

In that same year, some forty thousand Ute, Apache, and Navajo Indians occupied the vast area between the Arkansas, Pecos, and Colorado rivers and the present day Mexican border (Keleher 1952:xxiv). Regardless of other opinions they held concerning the occupation, Mexican and American citizens of New Mexico agreed that the Mexican government had failed utterly to protect them against the assaults of the Apaches, Utes, and Navajos (Keleher 1952:22). The local militia lacked horses and weapons and the soldiers had not been paid because the treasury was empty (Wilson 1989:100). In response, the United States government constructed and maintained a series of forts soon after their arrival in New Mexico and waged intermittent wars against the Indians (Keleher 1952:xxiv).

Recognizing that the occupying force was vulnerable to attack mainly from unhappy New Mexicans, General Kearny ordered work to begin on a fort. Fort Marcy was built under the direction of Captain Randolph Barnes Marcy, Kearny's regimental quartermaster (Keleher 1952:23). Although named for Secretary of War William L. Marcy, many people assumed the fort had been named for Captain Marcy, the builder. Lieutenants Emory of the Corps of Topographical Engineers and Gilmer of the Corps of Engineers selected the location and

drew the plans and specifications for a "star fort" (Wozniack 1992:5). An entry from Lieutenant Emory's diary dated August 19th discusses the fort and its location:

> I received an order to make a reconnaissance of the town and select a site for a fort, in co-operation with lieutenant Gilmer, of the engineers. This occupied me diligently on the 19th and 20th, and on the 21st the general was furnished with the map, a copy of which is sent to the adjutant general and another to the bureau of topographical engineers. The site selected and marked on the map is within 600 yards of the heart of the town, and is from 60 to 100 feet above it. The contour of grounds is unfavorable for the trace of a regular work, but being the only point which commands the entire town, and which is itself commanded by no other, we did not hesitate to recommend it. The recommendation was approved. On the 22d we submitted a complete plan of work, which was also approved. It is computed for a garrison of 280 men (Calvin 1951:57).

At that time, Santa Fe was inhabited by an estimated population of between 2,000 and 4,000 persons (Keleher 1952:113). The Santa Fe Kearny occupied had little of the charm associated with that city today. The town was compact only in the vicinity of the plaza; elsewhere houses were interspersed with agricultural fields (Wilson 1989:107-108). The government administration building, then as now, was on the north side of the plaza and the shops of merchants and traders occupied the remaining three sides (Keleher 1952:113). According to Lieutenant Emory, the fort was to serve as a citadel to which troops could retreat "in cases of extremities" and hold out until help arrived. Its chief object, however, was the effect it would have upon the morale of the newly subjugated population of Santa Fe. Indeed, "their own guns (i.e., the artillery captured from Armijo) will be chiefly used to garrison the fort and with them every house in Santa Fe could be levelled on the least appearance of revolt" (Wilson 1989:108).

Construction on the new fort was begun on August 23, only five days after the arrival of the occupying force in Santa Fe. Over 100 soldiers from Kearny's army, later supplemented by 31 adobe masons and other carpenters, began work on excavations and ramparts (Calvin 1957:57; Wilson 1989:107). In the middle of September, a number of human burials, mostly in coffins, were encountered in soils mixed with ash and charcoal to a depth of at least five

to six ft (1.5 to 1.6 m). By the early part of October, earth from the dry moat had been mostly excavated and one half of the rampart faced with adobe bricks. By late October, work had begun on the adobe walls of the blockhouse. Excavations for the blockhouse encountered additional human remains (Wozniak 1992:6).

On October 3, 1846, Lieutenant J.W. Abert of the Topographical Engineers described Fort Marcy as "situated on a prominent point of the bluffs commanding the city. The distance of the centre of this work from the flagstaff in the plaza, is but 665 yards. The whole of the interior is defiladed from all surrounding heights within range; 10 guns may be brought to bear upon the city. The slopes are rivetted with adobes. The blockhouse and magazine are constructed of pine logs one foot square. The only approachable point is guarded by the blockhouse, which also assists to protect the entrance of the fort" (Ex. Doc. 41, 30th Congress, 1st Session) (Keleher 1952:118-119).

In a letter dated November 1, Lieutenant Gilmer described the design and layout of Fort Marcy as an irregular hexagonal polygon modified to fit the terrain. The batteries had space for 17 cannons. The ditch was 8 ft (2.4 m) deep and the ramparts were 9 ft 2.7 m) high giving a total relief of 17 ft (5.2 m) from the bottom of the dry moat to the top of the walls. The fort was reported as capable of holding a garrison of 350 men but had no barracks. The powder magazine was reported as nearly complete and the blockhouse as under construction. By late November, Lieutenant Gilmer reported that the parapets and all the interior revetments of the fort were complete.

Work in November was slowed by an outbreak of measles, and, by the spring of 1847, a cemetery on or near Fort Marcy Hill contained 300 soldiers. These were said to be placed under the gun emplacements (Wozniack 1992:7). Work on Fort Marcy was discontinued during the winter of 1846-1847 due to disease, cold weather, and rebellions in Taos and Mora. Work on the fort resumed during the following spring, and Lieutenant Gilmer reported in April that, by employing as many local adobe layers as were available, work on

the blockhouse should be completed by mid-June. Lieutenant Gilmer departed Santa Fe for the East coast in late August of 1847; and by that time, presumably, all work on the fort had been completed (Wozniack 1992:9).

No shots were ever fired from Fort Marcy and the buildings and structures were never occupied. Soldiers were never garrisoned on top of Fort Marcy Hill and, until 1850, the officer who commanded the Ninth Military Department (New Mexico) occupied the Palace of the Governors while his men lived in the old Mexican barracks in the downtown area then known as the Post of Santa Fe. In 1867, the hilltop location was abandoned and the fort gradually went to ruin (Wilson 1989:110). The name Fort Marcy was transferred to the Post of Santa Fe, a site north of the Palace of the Governors in the vicinity of Washington and Lincoln Streets. The second Fort Marcy was located on the site where the Spaniards had built a fort in 1791 (Keleher 1952: 118-119).

Although the hilltop has never been subject to any intensive investigation, archeological interest in Fort Marcy Hill dates to the early part of the 1900s. In 1910, Edgar Hewett asserted his belief that there were ruins beneath Fort Marcy which were one of three pueblos in the city. Hewett described the Fort Marcy Ruin as follows:

> If one could have stood on the spot where the city now stands, looking east from the site of the Church of Our Lady of Guadalupe, five hundred years ago, there would have been seen on what we call Fort Marcy hill, an Indian town of considerable size, consisting of one large terraced pueblo and one or two smaller buildings near by, a kiva or sanctuary of the circular, subterranean type on the bench half way down the hill side (Levine 1989:13).

Hewett's contemporary, Ralph E. Twitchell (1910), agreed with Hewett, claiming that "the remains of the Pueblo site were used in construction of the fort" (Wozniack 1992:1). Wozniack, however, disagrees with Twitchell and Hewett saying that:

> Unfortunately, there are no indications whatsoever in the records of the construction of the fort to sustain such a conclusion; Twitchell appears to have been unacquainted with crucial records of that construction and to have made poor use of those records with which he was familiar in order to have

> proposed that the remains of a non-existent pueblo were used in the construction of Old Fort Marcy (Wozniack 1992:1).

Wozniack asserts that "no archeological investigations at Fort Marcy Hill, either on the top or sides of the hill, has yet produced any evidence of prehistoric burials" (Wozniack 1992:2). He further states that:

> Hewett and Twitchell wanted there to be the remains of a prehistoric pueblo on or under the site: there is no evidence from the excavations at the time of the construction of the fort nor from the limited subsequent investigations in the area of the moat that such a site is buried under Old Fort Marcy (Wozniack 1992:3).

Wozniack reiterates reports by Gilmer's soldiers of burials found within five or six feet of soil rich in ash and charcoal. Gilmer reported that Fort Marcy Hill was more like an ash heap, except at the surface where soils were gravelly and hard (Wozniack 1992:2). What The present study revealed that Gilmer's ash heap was in fact, a very large, very deep Anasazi midden indicative of a substantial Anasazi structural site on the hill.

Elliot (1988:101) notes the severity of impacts from recent improvements which include road construction, parking lot paving, the installation of sprinkler systems, and the construction of a ramp designed to provide handicap access to the Cross of the Martyrs. The excavation of the waterline and sprinkler system north of the fort produced additional burials from the paupers' cemetery (Wozniak 1992).

3.0 RESEARCH ORIENTATION

The primary goal of the present project was to locate, document, and evaluate the importance of cultural manifestations of the Old Fort Marcy site area. These included artifacts and features predating the fort as well as the extant remains of the fort itself including walls, ramparts, the moat, magazine, and blockhouse. Evidence for subsurface manifestations were sought including possible prehistoric habitations (potential pit and pueblo structures have been indicated in the literature), other activities and uses of the area, and human burials that either predate or are contemporaneous with the fort (Wozniak 1992).

4.0 PLAN OF WORK

4.1 FIELDWORK

Fieldwork was limited to that area of City property west of the parking circle and east of the Cross of the Martyrs. This portion of the park is landscaped and maintained by the City of Santa Fe.

4.1.1 Reconnaissance

The initial field task during testing was an intensive reconnaissance of the site areas contained within Old Fort Marcy Park property. Surface inspection was accomplished by three archeologists walking transects across the project area spaced at five meter intervals. The purpose of the reconnaissance was to identify features, possible features, and historic and prehistoric artifacts.

It was originally intended that all surface artifacts would be analyzed in the field, and visible surface artifacts were flagged for that purpose. Despite poor surface visibility due to vegetation, surface artifact densities were higher than expected. Consequently, the strategy was modified to count surface artifacts by type and collect a sample of diagnostic ceramics and other artifacts in danger of unauthorized removal. In addition, a trench and the profile of a cut bank were examined for stratified subsurface deposits located adjacent to City property.

4.1.2 Site Mapping

Site mapping was accomplished using an electronic total station and data collector. The map depicts the extent of Old Fort Marcy features including the moat, ramparts, magazine, blockhouse, and other features. All monitored and collected surface artifacts were point

provenienced, and all excavation units were plotted. Modern features such as park facilities, including parking lots and trails, roads, and other developments spatially related to the historic manifestations, were also mapped. In addition, surface anomalies that may represent features were documented. Additional laboratory mapping included digitizing historic maps of Old Fort Marcy and overlaying them on the field-generated topographic map to facilitate graphical reconstruction.

4.1.3 Test Excavations

Test excavations were conducted in feature areas and in featureless portions of the park. Testing techniques employed systematic exploratory excavations intended to determine the presence or absence of subsurface depositions not visible on the surface and, the vertical extent of any such deposits. Units were manually excavated and consisted of 23 0.2 m diameter hand auger tests and one 0.5 x 0.5 m shovel test. Fill from the units was screened through ¼-inch mesh, and results, including soil types and stratigraphy, were recorded. After excavation of the 0.5 x 0.5 m shovel test, a profile map showing the stratigraphic context was drawn and the unit was photographed. All subsurface artifacts encountered were collected. Finally, all units were backfilled after completion.

During the Fort Marcy project, the use of a backhoe was considered. The backhoe would have been helpful in characterizing the nature of deposits, especially in feature areas such as the ramparts, blockhouse, and moat. However, it was decided that mechanical excavation was too destructive of rich but inadequately characterized deposits. Furthermore, based upon background research, it was likely that human remains would be encountered. These remains would not have received the level of treatment they deserve given the limited scope of the current project.

4.1.4 Photography

The general site area, features, unit profiles, and disturbance sources to the site were documented by 35 mm black and white prints and color slides. Film for the project was supplied by the City.

4.2 LABORATORY ANALYSIS

Artifacts recovered during the testing project included lithics, ceramics, stone tools, bone, glass, and stoneware. All artifacts were washed and catalogued. Ceramics were classified as to type; stone tools were identified as to material and type; bone was analyzed for species and modification; and historic materials were identified as to type and age. Material types were described for debitage, and general observations were made as to reduction stage.

4.3 CURATION

Artifacts, notes, and other documentation from the test excavations were prepared for curation at the Archeological Research Collections. The Repository is the unit of the Laboratory of Anthropology/Museum of Indian Arts and Culture that provides a curation service for archeological collections.

5.0 ARCHEOLOGICAL INVESTIGATIONS

5.1 LA 111/609 SITE DESCRIPTION

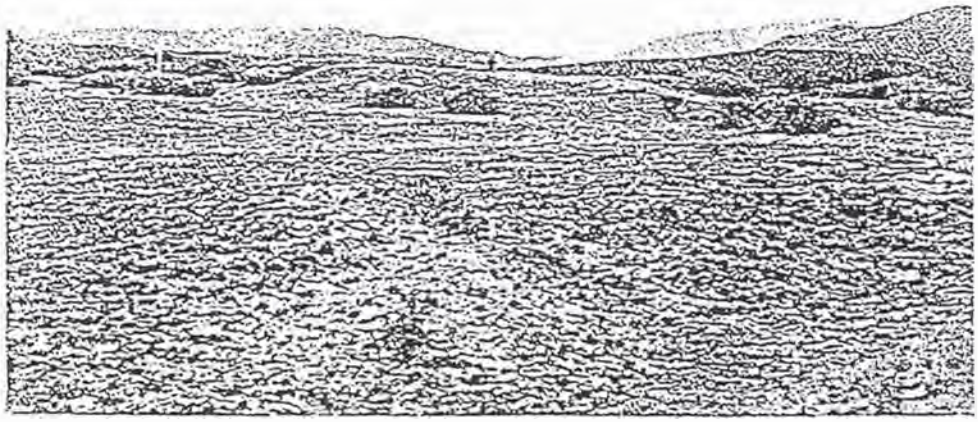
Although the location has been variously referred to as LA 111, LA 608, and LA 609, two Laboratory of Anthropology (LA) site numbers, LA 111 and LA 609, are currently assigned to Old Fort Marcy Hill. The Archeological Records Management System (ARMS) records in Santa Fe indicate that the two numbers reflect distinct occupations: LA 111 was originally assigned to the prehistoric occupation of the hill and LA 609 was later assigned to the fort. Although the use of dual numbers for a single site is unusual, their perpetuation reflects the fact that both are published (Louanna Haecker, personal communication to John Acklen on August 5, 1994).

While extant records do not indicate who originally recorded the Fort Marcy location, it is certain that H.P. Mera visited the site, mapped it (Mera Map No. 893), and made prehistoric ceramic collections from the hilltop location and valley below which are referenced in Museum collections under LA 111 (Sheet No. 893). Ceramics collected by Mera on and about that location include Red Mesa Black-on-white, Kwahe'e Black-on-white, and Santa Fe Black-on-white.

The ARMS records are silent as to who used LA 608 to refer to Fort Marcy; however, a memo to Jack Wilson from Cordelia Snow dated January 12, 1973, leaves no doubt that it was utilized. According to the memo, the historic component at Fort Marcy did not have a number at that time and LA 609 referred to a site in the San Luis valley about 8 mi (12.9 km) from Alamosa in Colorado. The memo asks whether LA 609 had been published and, if so, suggests that it be retained to refer to Fort Marcy. Apparently the LA number had been published for, in a subsequent site card dated June 9, 1977, Stewart Peckham notes that LA 609 was originally assigned to a sherd area recorded by Yeo in the San Luis

valley but that sometime during the period from January 3, 1973, to March 19, 1977, that assignment was cancelled and the number re-assigned to the Fort Marcy complex.

Topographically, the fort is located on the end of a broken and arroyo-dissected ridgeline overlooking the city at an elevation of approximately 7,062 ft. The ridge on which the site is located is in one of a series of dissected, southwest-trending ridges and hills ascending toward the Sangre de Cristo mountains to the east (Photograph 5.1). The Santa Fe River lies 500 m south of the site. Soils derive from the Ustic Torriothents association, which are characterized by a surface layer of light reddish-brown calcareous sandy clay loam or sandy loam that usually contains a few rounded igneous gravels and cobbles. The underlying material, to depths of five ft (1.5 m) or more, consists of weakly stratified gravelly sandy



Photograph 5.1 Site Overview.

loam or sandy clay loam. Small to medium gravels of the Santa Fe group cover much of the surface. Strata of sand, gravels, and cobbles are common below a depth of approximately 40 in (101.6 cm) (Maker et al. 1978).

The ridge in the vicinity of the site is flat-topped. Given Lieutenant Emory's comment that the "contour of the grounds is unfavorable" (Calvin 1957:57), it seems likely that Snow (1989) is correct in postulating that the surface was leveled with a fresno or other such device prior to fort construction. Those portions of the site included within the present park are landscaped and grass cover has resulted in poor surface visibility.

5.2 FEATURE DESCRIPTIONS

Remnants of at least three features related to the fort are clearly visible on the surface. These include the blockhouse, ramparts, and the moat. A low mound thought to be the magazine was documented on the inside of the ramparts and is discussed with that feature. An anomalous depression of unknown function was also documented as a feature. It was difficult to precisely define features given their poor preservation. Also, the features have been heavily impacted by roads, pictured in Appendix A, and other poorly known natural and human agents. The features as mapped during the present project are presented in Figure 5.1. Drawings derived from Gilmer and from an unspecified historic source are overlain on the topographic base in Figures 5.2 and 5.3.

5.2.1 Feature 1 Blockhouse

Historical documents describe the location of the blockhouse as 60 yards (54.9 m) from the ramparts (Wilson 1989:109); however, they disagree as to the techniques used in construction. Keleher (1952:109) described the structure as being built of one-foot square pine logs while Gilmer's correspondence (Wozniack 1992:6) clearly stated that the structure was composed of six-foot thick adobe walls. When work began on the blockhouse in the fall

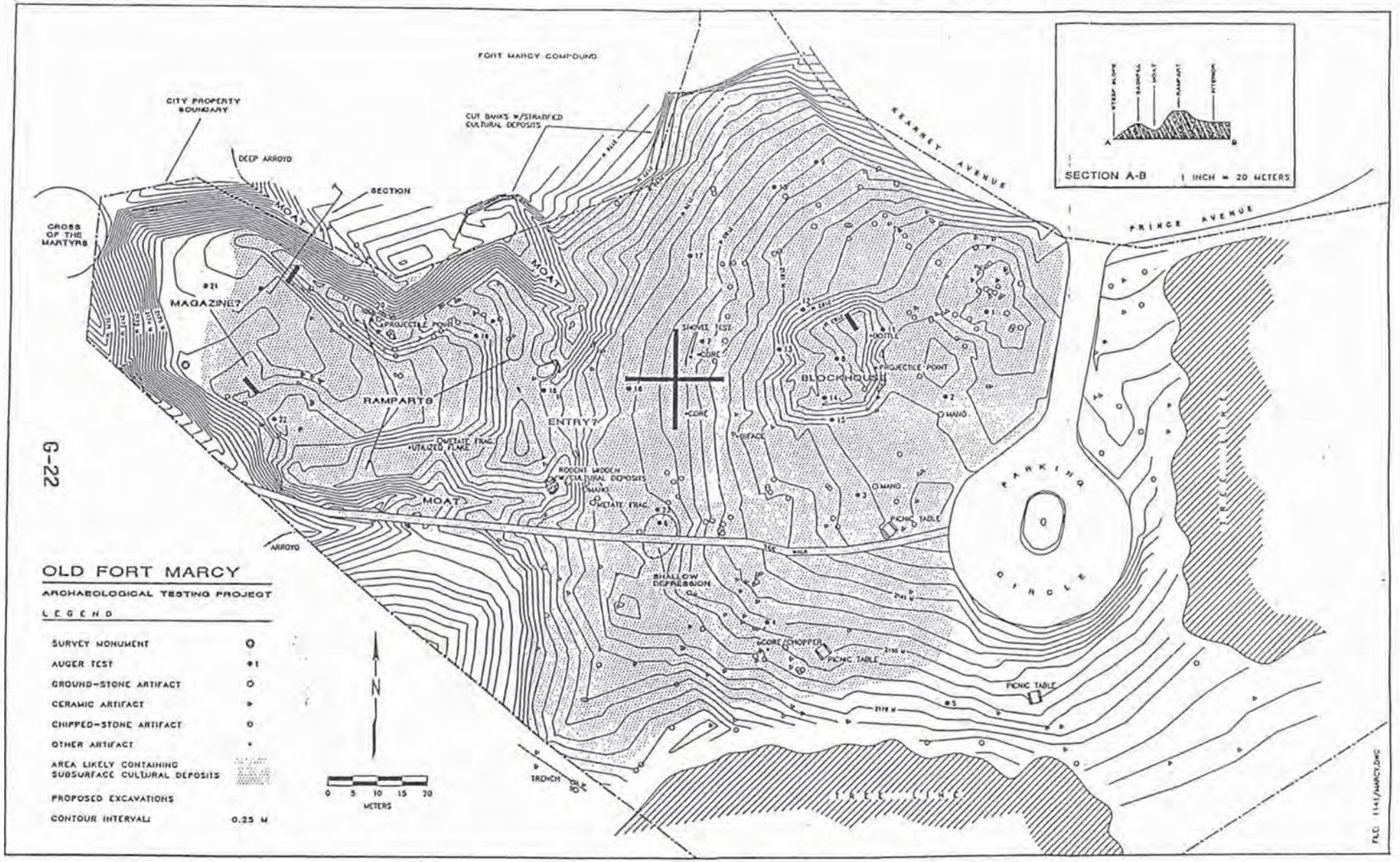


Figure 5.1 Old Fort Marcy Site Map.

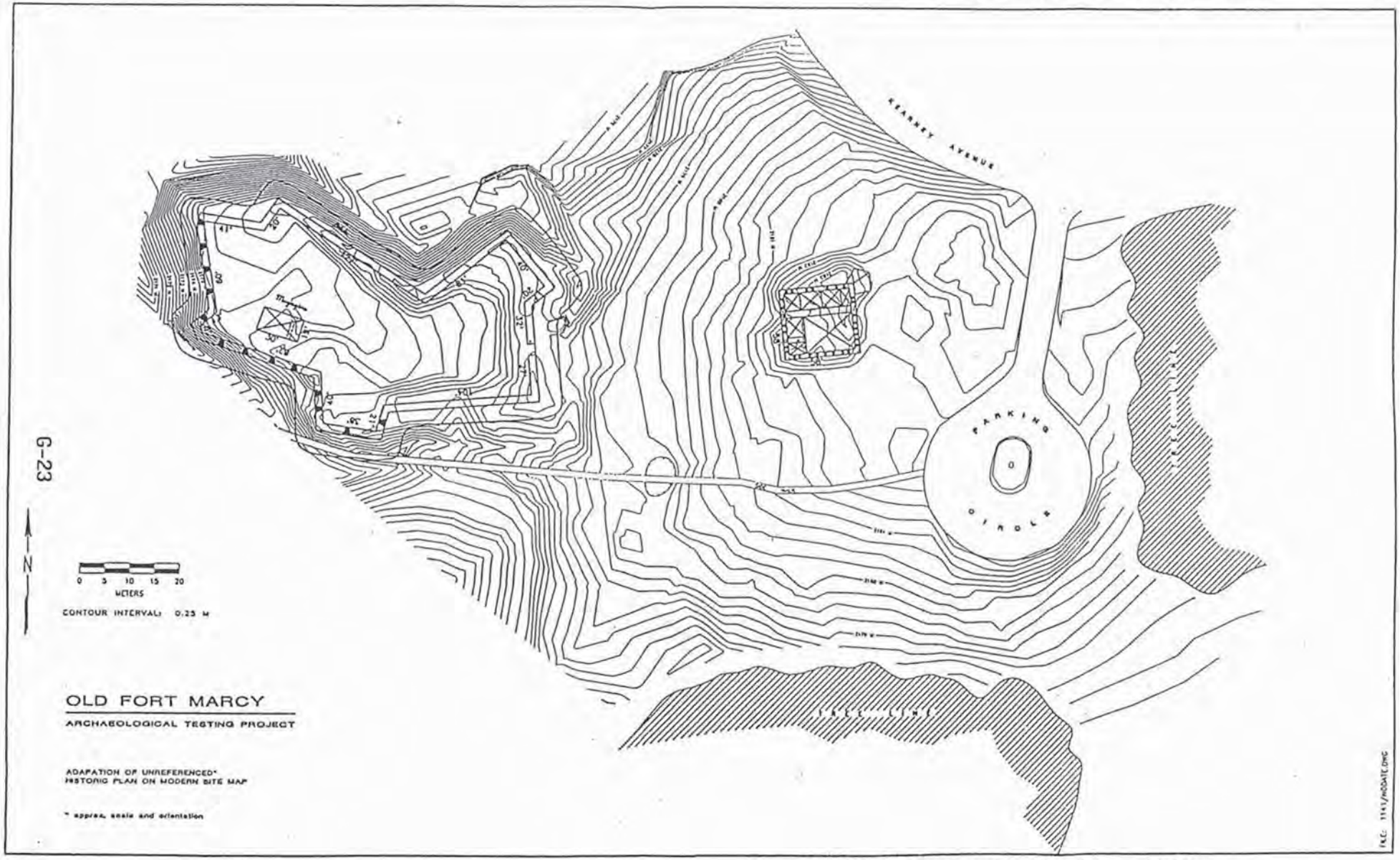


Figure 5.2 Historic Overlay on Fort Marcy Topographic Map.

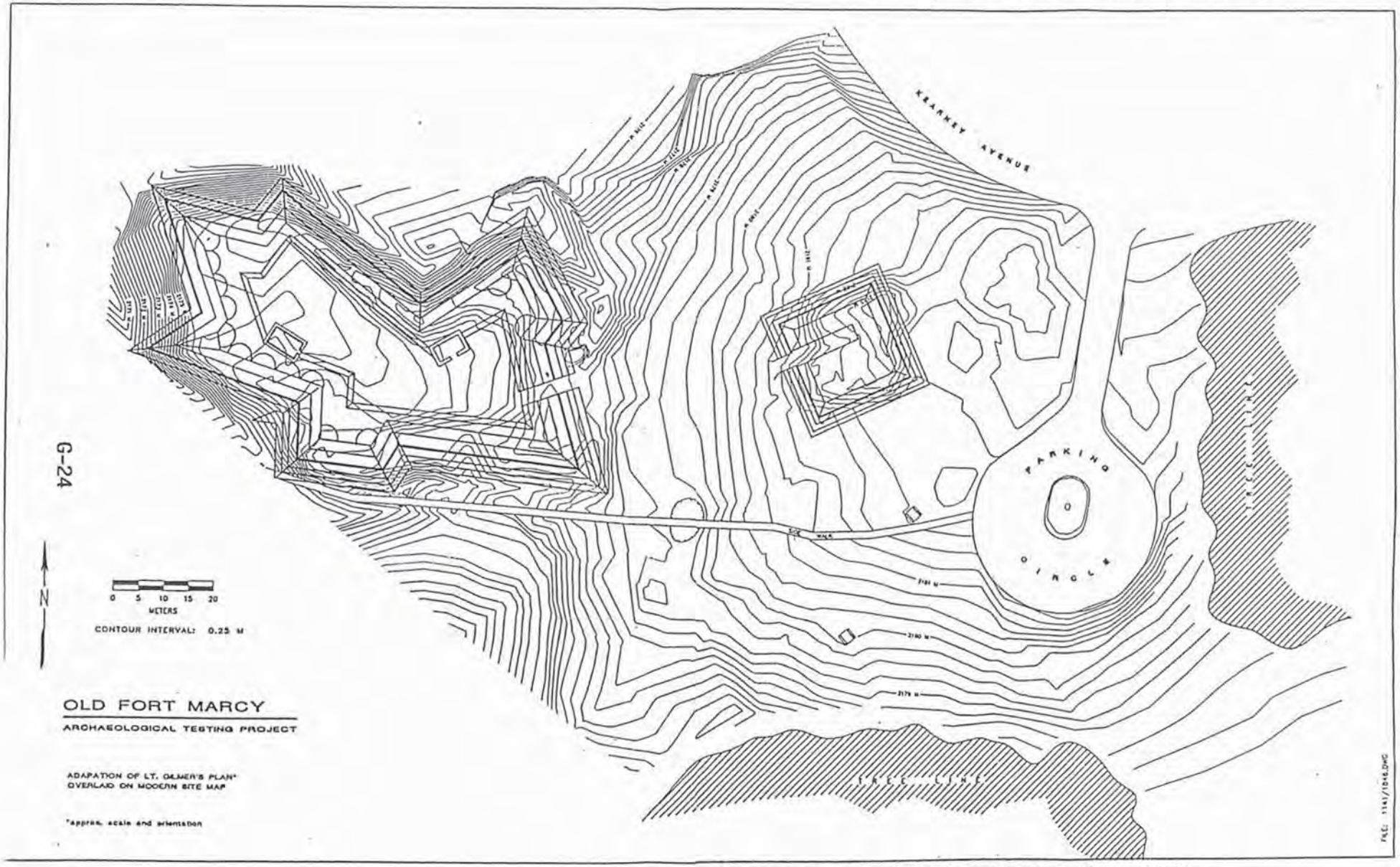


Figure 5.3 Historic Overlay on Fort Marcy Topographic Map.

of 1846, Gilmer reported that excavations associated with the foundations revealed a number of human skeletons. Work was discontinued during the early winter and, presumably, was completed during the spring and early summer of 1847. There are no documents which clearly indicate that work on the structure was ever completed (Wilson 1989:109; Wozniack 1992:9).

Archeological testing confirmed the location of the blockhouse 60 yards east of the ramparts. The feature identified as the blockhouse today consists of a low, rectangular earthen mound with a central depression. The mound approximately measures 25.0 x 20.0 m from outside edge to outside edge and is about 1.75 m high. Five auger tests were excavated to a maximum depth of 1.1 m in the blockhouse mound. Three tests (AT 8, 13, and 14) revealed coarse sand and gravel overlying Anasazi midden fill; the remaining two tests (AT 11 and 12) revealed the presence of Anasazi midden fill to the base of the excavations. All of the tests were terminated on rock. It was not determined whether the rock, upon which tests were terminated, was cultural or natural. Much of the fill contained in the mound consists of prehistoric artifacts and ashy soil visible on the surface.

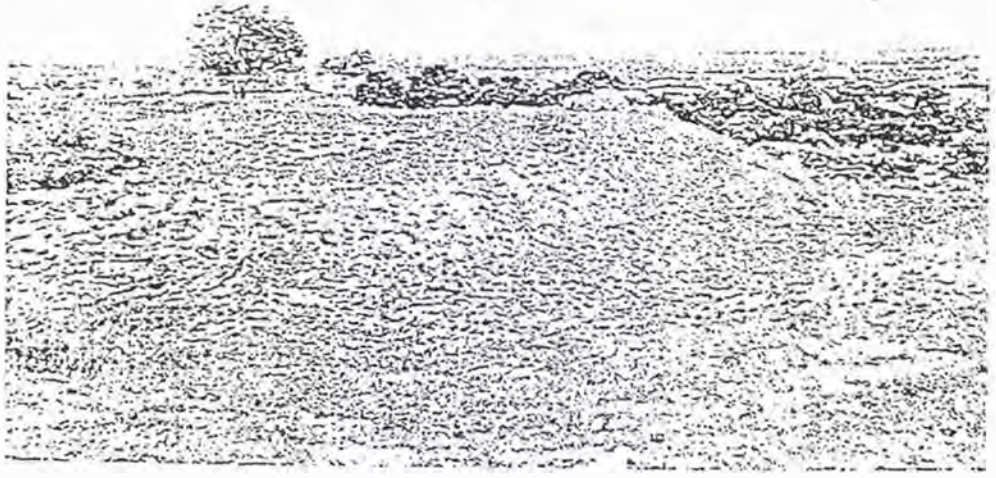
Archeological evidence supports adobe brick construction. The coarse sand and gravel which characterizes upper levels in three of the five tests is likely the residue of adobe bricks leached of their clay. Furthermore, there was no evidence of wood or post molds in any of the tests. Given the six foot wall width reported by Gilmer, it can be deduced that the interior dimensions of the blockhouse measured 19 x 14 m which is 266 m^2 (2863.3 ft^2).

5.2.2 Feature 2 Ramparts

In a letter dated November 1, 1846, Gilmer described the layout of Fort Marcy as an irregular, hexagonal polygon modified to fit the terrain. The fort was constructed by excavating fill material from a dry moat and using the fill to form the interior embankments or core of the ramparts, perhaps by using a rammed earth technique. The ditch was

eventually excavated to a depth of 8 ft (2.4 m) and the ramparts were 9 ft (2.7 m) high for a total vertical relief of 17 ft (5.2 m) (Photograph 5.2). The revetments of the interior and exterior slopes were subsequently lined with adobe bricks (Wozniack 1992:5-7).

The ramparts today are marked by low, irregular-shaped earthen mound segments. Visible portions of the ramparts measure 80 x 50 m and the wall mounds range from hill level to a maximum height of 4 m measured from the top of the mound to the bottom of the moat which partially defines its outside edge. Wall mound widths range from a minimum of 3 m to a maximum of 7 m. The ramparts have been obliterated along their western perimeter where relief characterizing most of the feature gradually grades into the contour of the hilltop. Like the blockhouse, the interior of the ramparts is marked by a distinctive



Photograph 5.2 Moat and Ramparts.

depression equivalent in grade to the exterior of the mound. Also similar to the blockhouse, prehistoric artifacts and midden deposits are visible in portions of the ramparts.

Three auger tests (AT 18, 19, and 20) were excavated in the walls to a maximum depth of 50 cm and one test (AT 22) was excavated in the interior of the ramparts to a depth of 20 cm. Three of the four tests were terminated on rock while AT 20 was terminated on a calcareous soil interpreted as sterile. All of the tests revealed an ashy silt with charcoal, burned rock, and occasional prehistoric artifacts. No stratification was noted in any of the tests. In addition, a rodent burrow indicates heavy midden deposits contained within the earthworks. From all appearances, the sediments which comprise the ramparts are redeposited midden soils.

A low earthen mound extends from the inside edge of the ramparts out into its center. The mound measures 15 x 10 m from outside edge to outside edge and is 0.5 m in height. This mound may be the remains of the powder magazine referred to in historical documents. The structure was not tested. Gilmer noted that numerous burials were found during the construction of the magazine in what was said to have been an Anglo-American graveyard (Wozniack 1992:1).

5.2.3 Feature 3 Moat

The construction of Fort Marcy began with the excavation of the dry moat which surrounded the ramparts. As moat construction entailed massive excavation, it is not surprising that many of the frequent burials encountered during fort construction were located in that feature. Records indicate that the moat was excavated to a depth of 8 ft (2.4 m).

The moat, as documented during the present study, consists of a linear depression which parallels the contour of the hill. The inside wall of the moat is defined by the outer wall of the ramparts along its northern, eastern, and southern perimeters but is absent along its

western perimeter. V-shaped in cross section, the moat is 2 to 5 m wide and up to 4 m deep at the base of the rampart walls. Approximately 160 m of the moat were well defined on the surface of the site. Along the eastern perimeter of the fort, one section of the moat appears not to have been excavated to prove entry into the ramparts. Portions of the moat are clearly bermed, especially along its northern perimeter. Arroyos have channelized segments of the moat on the northern and southern ends of the site. The Fort Marcy Compound development abuts portions of the northern end of the moat.

5.2.4 Feature 4 Anomalous Depression

Feature 4 consists of an irregular circular depression located to the southwest of the blockhouse. The depression ranges from 8.5 to 12 m in diameter and is 0.5 m in depth. The sidewalk through Fort Marcy Park passes through the center of the depression but does not appear to have significantly impacted it.

Two auger tests were excavated in an attempt to determine the function of the depression. Auger Test 6 documented a dense clay containing midden fill to a depth of 90 cm below ground surface (bgs). Auger Test 23, placed just outside of the depression, documented a sterile, calcareous clayey silt with no artifactual inclusions.

The depression could be a cistern. Although early historic records clearly state that there was no water source on Fort Marcy Hill, a resident is reported to have fallen into a cistern at Fort Marcy during the 1850s (Wozniack 1992:9). An alternative possibility is that the depression was a pit structure associated with an Anasazi occupation of the hill. Both possibilities remain viable.

5.3 TEST EXCAVATIONS AND STRATIGRAPHY

One 0.50 x 0.50 m shovel test and 23 auger tests were excavated on the site. The tests were used to determine the areal extent of subsurface deposits and their depth. Test excavations were placed judgmentally in features and in featureless portions of the site. Fill was screened through ¼ inch mesh and all artifacts encountered were collected.

Shovel Test 1, a 0.50 x 0.50 m test, was excavated between the blockhouse and the ramparts. The shovel test was excavated to a depth of 0.70 m bgs where excavation was halted due to the limited size of the unit. Five stratigraphic units were encountered in the test (Figure 5.4). Stratum 1 (0.0-0.3 cm bgs) consists of fine silty sand with a light ash stain and small sandstone and quartzite gravels. Stratum 2 (0.3-0.25 cm bgs) consists of reddish brown sand with fragments of sandstone. Cultural materials include four pieces of lithic debitage and three prehistoric sherds. Stratum 3 (0.25-50 cm bgs) consists of a dark, dense charcoal stained soil. Artifacts recovered include 32 pieces of lithic debitage, 13 prehistoric ceramics, 1 historic ceramic, 14 pieces of bone, and 1 projectile point tip. Stratum 4 (0.52-0.60 cm bgs) consists of a layer of dense, beige-colored clay with quartzite gravel and cobble inclusions. No artifacts were recovered from this unit. Stratum 5 (0.60-0.70 cm bgs) consists of a lighter, charcoal stained soil. Artifacts recovered from this stratum include five pieces of lithic debitage and six prehistoric sherds.

Twenty-three auger tests were excavated on the site to depths varying from 0.10 to 1.40 m bgs. Information from each of these auger units is summarized in Table 5.1. Twelve of the auger tests were feature-based and were specifically referenced in relation to the features. The remaining tests were excavated in featureless portions of Fort Marcy Hill.

A total of 19 of 23 auger tests was excavated in what appears to be midden fill. Fill from 16 of the auger tests consisted of ash-stained soil with charcoal, and fill from 3 consisted of ash-stained soil without charcoal. Subsurface artifacts were recovered from 10 auger tests.

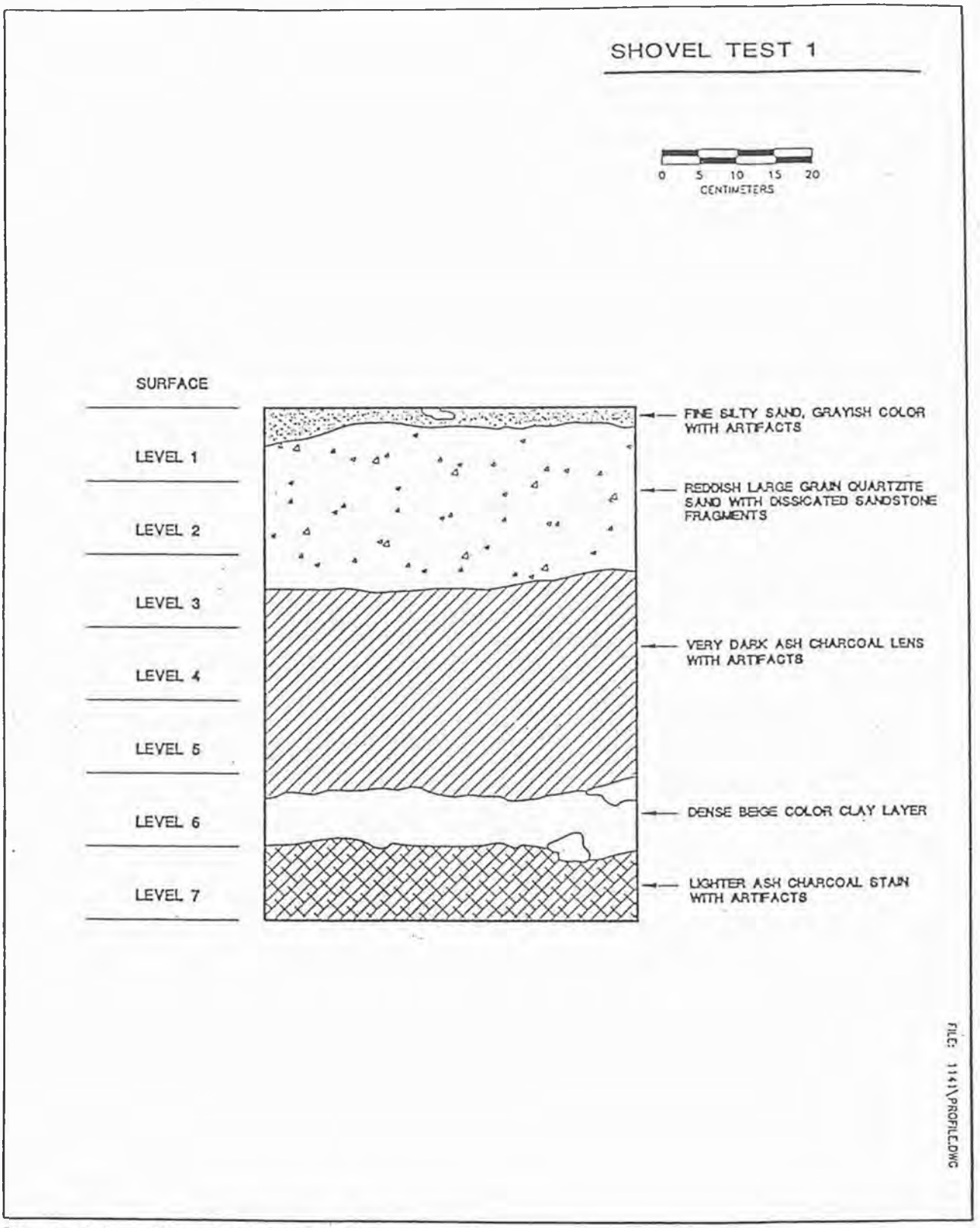


Figure 5.4 Shovel Test 1 Profile.

Only 4 of the auger tests encountered what was interpreted as sterile soil. Of these 4, 3 were excavated to 10 cm bgs and one to 20 cm bgs. Sixteen of the 23 tests were terminated on rock which prevented further excavation. Six were terminated on a calcareous soil which was interpreted as sterile. The remaining test was terminated on a noncalcareous soil, although the notes indicate that cultural material likely underlays the test.

A mechanical cutbank associated with the development of Fort Marcy Compound was also examined. Stratified cultural deposits are clearly visible to the depth of the exposed cut (1.5 m). These deposits may indicate the presence of intact prehistoric remains on City property north of the Fort Marcy earthworks.

Table 5.1 Shovel Test Results.

No.	Strategy	Final Depth (cm bgs)	Depth of Cultural Deposits (cm bgs)	Termination	Stratigraphy	Cultural Inclusions	Comments
AT1	Extramural location	70	0-60	Rock	Midden fill with thin lenses of sterile	Ashstain charcoal artifacts	Cultural fill throughout test, termination due to rock, unknown depth of cultural fill
AT2	Extramural location	140	0-30	Calcareous soil	Midden fill overlying clay which overlays coarse sand	Ashstain charcoal artifacts	Cultural fill overlying sterile calcareous substrate
AT3	Extramural location	15	0-15	Calcareous soil	Midden fill overlying sterile coarse sand	Ashstain charcoal artifacts	Shallow cultural fill overlying calcareous substrate
AT4	Extramural location	50	0-40	Calcareous soil	Midden overlying sterile coarse sand	Ashstain charcoal artifacts	Cultural fill overlying calcareous substrate
AT5	Extramural location	20	0	Calcareous soil	Sterile coarse sand	None	Sterile test

No.	Strategy	Final Depth (cm bgs)	Depth of Cultural Deposits (cm bgs)	Termination	Stratigraphy	Cultural Inclusions	Comments
AT6	Depression	90	0-90	Rock	Dense clay containing midden fill	Ashstain charcoal artifacts	Final depth of cultural material unknown, termination due to rock
AT7	Adjacent to ST1	70	0-70	Rock	Midden fill within coarse sand	Ashstain charcoal artifacts	Final depth of cultural material unknown, termination due to rock
AT8	Blockhouse	110	30-110	Rock	Sterile coarse sand overlying midden	Ashstain charcoal artifacts	Unknown final depth of cultural material, unknown relationship of artifacts to blockhouse, rock termination
AT9	Extramural location	30	0-30	Sterile soil	Midden overlying coarse sand	Ashstain artifacts	Termination at sterile, noncalcareous fill, cultural material may underlie
AT 10	Extramural location	10	0-10	Rock	Midden fill	Ashstain	Termination due to rock, unknown depth of cultural deposits
AT 11	Blockhouse	60	0-60	Rock	Midden fill	Ashstain charcoal artifact	Cultural fill throughout test, termination due to rock
AT 12	Blockhouse	105	20-105	Rock	Midden fill	Ashstain charcoal artifact	Cultural fill throughout test, termination due to rock
AT 13	Blockhouse	50	25-45	Rock	Oxidized soil overlays coarse sand/gravels overlies midden fill	Ashstain charcoal artifacts	Oxidized soil overlying silty sand and gravels which overlies midden, termination due to rock

No.	Strategy	Final Depth (cm bgs)	Depth of Cultural Deposits (cm bgs)	Termination	Stratigraphy	Cultural Inclusions	Comments
AT 14	Blockhouse	30	0-30	Rock	Ash/ charcoal and gravel overlying midden fill	Ashstain charcoal artifacts	Cultural fill to unknown depth
AT 15	Just outside blockhouse	75	0-75	Rock	Midden fill	Ashstain charcoal artifact	Cultural fill overlying calcareous substrate
AT 16	Extramural between blockhouse and ramparts	10	0	Rock	Sterile coarse sand, broken cobbles	None	Sterile test
AT 17	Extramural between blockhouse and ramparts	10	0	Rock	Sterile coarse sand, thin ashy lens, broken cobbles	None	Silty soil overlying thin ashlens, terminated at rocky substrate
AT 18	Ramparts	50	0-50	Rock	Midden fill	Ashstain charcoal FCR	Cultural material throughout test, terminated due to rock
AT 19	Ramparts	45	0-45	Rock	Silty ashy soil overlying midden fill	Ashstain charcoal, small FCR fragments	Cultural fill overlying sterile soil, terminated due to rock
AT 20	Ramparts	35	0-35	Calcareous soil	Midden fill overlying sterile clayey calcareous soil	Ashstain charcoal	Cultural fill overlying sterile calcareous soils
AT 21	Extramural extreme West end of site	10	0	Rock	Sterile coarse sand		Sterile test
AT 22	Inside ramparts	20	0-20	Rock	bioturbated silty soil with gravel	Possibly ashy soil	Ashy soil, possible cultural, disturbed by bioturbation, terminated due to rock

No.	Strategy	Final Depth (cm bgs)	Depth of Cultural Deposits (cm bgs)	Termination	Stratigraphy	Cultural Inclusions	Comments
AT 23	Circular depression (extramural)	10	0	Calcareous	Mixed silty/clayey calcareous soils		Sterile test

5.4 CULTURAL MATERIALS

An estimated 25% of cultural material present on the surface of the site was monitored in the field. Historic artifacts include bottle glass and a fragment of china. Prehistoric surface artifacts recorded include 8 lithic tools, 3 cores, 134 pieces of lithic debitage, 193 sherds, and 26 pieces of groundstone. Prehistoric artifact types include projectile points, preform, core chopper, chipped-stone debitage, ceramics, and manos and metates.

Numerous fragmentary groundstone artifacts were observed across the site. Most of these are unidentifiable fire-cracked fragments consisting of fine-grained sandstone. Both manos and metates appear to be represented. A complete, one hand, bifacial mano was observed.

One-hundred and seventy-three artifacts were recovered from surface collections and test excavations (Table 5.2). Collected artifacts include six pieces of historic glass, a historic whiteware, two historic Tewa sherds, five projectile points, two lithic tools, 61 pieces of lithic debitage, 72 prehistoric sherds, 17 pieces of bone, and seven pieces of burned adobe.

5.4.1 Historic Materials

Historic materials from Fort Marcy include six fragments of glass and a low fired whiteware ceramic. The ceramic exhibits a porous paste with a lead glaze and has a small portion of

Table 5.2 Fort Marcy Artifacts.

Provenience		Ceramics	Lithic Tool	Projectile	Debitage	Adobe	Bone	Glass	Summary
General	Surface	10	--	2	--	--	--	1	13
Trench	Surface	2	--	--	--	--	--	--	2
Block House	Surface	7	--	1	--	--	--	--	8
Cut Bank	Surface	2	--	--	--	--	--	--	2
ST1	Surface	--	--	--	2	--	--	--	2
	0-10 cm	3	--	--	4	--	--	--	7
	20-30 cm	2	--	--	2	--	--	--	4
	30-40 cm	6	--	--	13	--	10	--	29
	40-50 cm	7	--	1	10	--	2	--	20
	50-60 cm	1	--	--	7	--	2	--	10
	60-70 cm	7	--	--	5	--	--	--	12
AT1	0-30 cm	5	--	1	3	--	--	--	9
	30-50 cm	2	--	--	--	--	--	--	2
	50-60 cm	--	--	--	2	--	--	--	2
AT2	10-20cm	--	--	--	1	--	--	--	1
	20-30 cm	--	--	--	4	--	--	--	4
AT 11	10-20 cm	--	--	--	1	--	--	--	1
	40-50 cm	--	--	--	--	--	--	1	1
	50-60 cm	1	--	--	--	--	1		2
AT 12	20-35 cm	--	--	--	2	--	1	1	4
	35-50 cm	4	--	--	--	2	--	--	6
	50-65 cm	2	--	--	--	--	--	--	2
	65-75 cm	2	--	--	--	--	--	1	3
AT13	25-35 cm	--	--	--	1	--	--	--	1
	35-45 cm	2	--	--	--	--	1	--	3
AT14	0-20 cm	1	--	--	1	--	--	--	2
AT15	0-15 cm	1	--	--	--	--	--	--	1
	25-40 cm	--	--	--	--	--	--	1	1
	40-60 cm	1	1	--	--	--	--	--	2
	60-70 cm	--	--	--	1	--	--	--	1
AT16	0-10 cm	--	--	--	--	--	--	1	1
AT17	0-10 cm	2	--	--	2	--	--	--	4
AT18	0-20 cm	1	1	--	--	--	--	--	2
	20-30 cm	1	--	--	--	--	--	--	1
	30-40 cm	--	--	--	--	5	--	--	5
	40-50 cm	3	--	--	--	--	--	--	3
Summary		75	2	5	61	7	17	6	173

a hand-painted green and red design which likely dates to the period of fort construction. Glass artifacts are limited to bottle fragments. One brown glass bottle base, recovered from the surface, has a round base profile and displays faint seam marks which implies manufacture after A.D. 1810. One opalized, clear glass fragment and two pieces of brown glass have heavy patina on their surfaces, suggesting some age to the specimens.

One green bottle rim with outside threading was discovered at 40 - 50 cm bgs in AT 11. Metal screw-top closures were introduced around 1900 and continue to the present. This specimen appears to be relatively modern in age. One brown glass bottle fragment, recovered from 20-35 cm bgs in AT 12, was machine made and appears to be from a modern beer bottle. The location of post-A.D. 1900s artifacts at 25 to 50 cm bgs would argue for considerable modification of the landscape in recent years.

5.4.2 Ceramic Artifacts

Seventy-five prehistoric ceramics were collected from the site for laboratory analysis (Table 5.3). Although there are three time periods represented in the Fort Marcy ceramic assemblage, Pueblo II (A.D. 900-1125), Pueblo IV (A.D. 1350-1600), and Historic (A.D. 1600-Present), the majority of all the pottery is assigned to the Pueblo II or Late Developmental period. The Pueblo IV or Classic period occupation is represented by sherds from a single vessel, and the Historic period is represented by two sherds.

The most commonly occurring decorated type is Red Mesa Black-on-white (A.D. 900-1125). Also present in the limited sample collected is Gallup Black-on-white (A.D. 1050-1150) and Kwahe'e Black-on-white (A.D. 1125-1200). Temper analysis suggests that the Red Mesa and Gallup Black-on-white ceramics were intrusive from the Cibola area whereas the Kwahe'e Black-on-white was manufactured locally. The Red Mesa ceramics appear to be somewhat late for that type and the co-occurrence of Red Mesa and Kwahe'e suggests that the primary occupation of the site occurred within the A.D. 1050-1150 interval.

Table 5.3 Fort Marcy Ceramics.

Provenience		Type	Number	Date
General	Surface	Red Mesa B/W	1	A.D. 900-1075
		Gallup B/W	1	A.D. 1050-1150
		Kwahe'e B/W	1	A.D. 1125-1200
		Tewa unidentified	1	Post A.D. 1700
		Tewa Polychrome unidentified	1	Post A.D. 1701
		Cibola White ware	1	
		Plain ware	4	
Trench	Surface	Red Mesa B/W	1	A.D.900-1075
		Kwahe'e B/W	1	A.D. 1125-1200
Blockhouse	Surface	Red Mesa B/W	1	A.D.900-1075
		Kwahe'e B/W	1	A.D. 1125-1200
		Plain ware	5	
Cutbank	Surface	Corrugated	2	
ST1	0-10	Plain ware	3	
	10-20	Plain ware	2	
	30-40	Red Mesa B/W	1	A.D.900-1075
		Plain ware	5	
	40-50	Red Mesa B/W	3	A.D.900-1075
		Plain ware	4	
	50-60	Plain ware	1	
	60-70	Micaceous plain ware	6	
		Basketry impressed plain ware	1	
AT1	0-30	Red Mesa B/W	1	A.D.900-1075
		Plain ware	4	
	30-50	Corrugated	1	
		Plain ware	1	
AT 11	50-60	Red Mesa B/W	1	A.D.900-1075
AT12	35-50	Biscuit ware	4	A.D. 1450-1550
	50-65	Plain ware	2	
	65-75	Red Mesa B/W	1	A.D.900-1075
		Plain ware	1	
AT13	35-45	Plain ware	2	
AT14	0-20	Plain ware	1	
AT15	0-15	Corrugated	1	
	40-60	Cibola White ware	1	
AT17	0-10	Plain ware	2	
AT18	0-20	Plain ware	1	
	20-30	Basketry impressed plain ware	1	
	40-50	Red Mesa B/W	1	A.D.900-1075
		Plain ware	1	
		Corrugated	1	
Summary			75	

The Pueblo IV period occupation is represented by four sherds from a single Biscuitware vessel suggesting some use of the site area in the A.D. 1450-1550 interval. Two sherds suggest a post A.D. 1700 occupation; these include an unidentifiable Tewa-paste redware and a Tewa paste Polychrome. Conspicuously absent in the small assemblage collected are Santa Fe Black-on-white, Wiyo Black-on-white, and Rio Grande glazewares. The apparent absence of these types suggest that the site area was not occupied in the interval between A.D. 1150-1450.

5.4.3 Lithic Artifacts

The chipped-stone artifacts recovered from Fort Marcy include projectile points, biface fragments, other tools, and debitage. Of the 67 chipped-stone artifacts collected from the site, 6 are tools and 61 are debitage.

The tools consist of two projectile points, three possible projectile point tips, and a core tool. The two projectile points were recovered from the surface. One is characterized as a small triangular biface that lacks evidence of hafting elements. The specimen was manufactured from a jasper. It resembles a Cottonwood Triangular projectile point. Cottonwood-like points are relatively common after A.D. 1000 and generally post-date A.D. 1300 in the Great Basin (Brown et al. 1993:408). The other is a very small, delicately produced corner-notched arrow point, probably a puebloan type. It was made of polvadera obsidian. Two very thin biface tips exhibit fine pressure flaking over the surfaces which suggest they were arrow point fragments. These were composed of chalcedony and obsidian. The other biface tip was more crudely worked and made of obsidian. The core tool was made of chalcedony.

Debitage includes flakes, angular shatter, and cores. These artifacts were produced from chert, jasper, chalcedony, quartzite, petrified wood, and obsidian as well as a few pieces of limestone, diorite, and schist.

5.4.4 Faunal Remains

The faunal assemblage consists of 17 bone or antler fragments recovered from shovel or auger tests. Of these, 12 are unidentified, split, long bone fragments of large mammals. White-tailed deer (*Odoicoileus virginianus* or *hemionus*) remains account for two specimens. These include the distal ends of metatarsal and humerus bones. Two modified specimens are associated with the Fort Marcy faunal remains. One straight, split antler fragment was ground on the end and could represent a flaking tool or gaming piece. A bird bone was also modified into a small bead.

5.4.5 Other Materials

Adobe or oxidized clay fragments were recovered from two auger tests (12 and 18) on the site. Some specimens from both AT 12 (30-40 cm bgs) and AT 18 (30-40 cm bgs) contained small pieces of charcoal embedded in the matrix.

6.0 SUMMARY AND RECOMMENDATIONS

6.1 SUMMARY

The primary goal of the present project was to locate, document, and evaluate the importance of cultural manifestations of the Old Fort Marcy site area. These manifestations included artifacts and features predating the fort as well as the extant remains of the fort itself including walls, ramparts, the moat, magazine, and blockhouse. Considerable confusion exists concerning site number designations for Old Fort Marcy. At least two Laboratory of Anthropology site numbers refer to cultural resources present on Fort Marcy Hill. LA 111 refers to the prehistoric component underlying the fort. LA 609 refers to the fort itself. Because both numbers have been published, the dual numbering system is included in the updated Laboratory of Anthropology site record submitted as a part of this study.

The testing project successfully characterized surface features associated with the fort. Total station maps give precise information concerning the location and height of historic features associated with the fort. The study left no doubt that Hewett and Twitchell were correct in their assertion that a substantial Anasazi pueblo underlies the ruins at Fort Marcy. Testing defined important prehistoric cultural deposits which are continuous within the park boundaries. Due to the depth and abundance of cultural deposits, the study was less successful in documenting details of historic architecture, the kinds and location of prehistoric architecture, and the depth and extent of Anasazi midden deposits.

The study confirmed the presence of the blockhouse, the ramparts, the moat, and suggested that the powder magazine was likely contained within the ramparts. Test excavations in the blockhouse revealed a stratum of coarse sand and small gravel which was interpreted as the remains of leached adobe; these results suggested that the blockhouse was constructed from adobe brick and not from squared logs as Keleher (1952) asserted. The abundance of ash

and charcoal in the blockhouse fill may indicate that adobes were manufactured on Fort Marcy hill and are partially composed of midden fill.

Fill within the ramparts (consisting largely of prehistoric midden deposits) was indistinguishable from that found in featureless portions of the hill; this provided confirmation for Gilmer's description that moat fill was used to construct the rampart core (Wozniack 1992:5). Test excavations did not reveal any evidence of the adobe revetments, and these have probably completely deteriorated. Intact masonry walls such as the one pictured in Appendix A were not detected in any of the feature areas at the fort. Although the location of the picture could not be confirmed, it seems likely that intact masonry is preserved at Fort Marcy within the blockhouse and within the magazine. A depression located during testing could be the remains of a cistern or, alternatively, a pit structure. Testing failed to lend credible support for either of these possibilities; however, the size of the feature and the amount of historic earth moving during fort construction might argue for the cistern.

One of the most startling results of the present study is the total absence of evidence for any historic occupation of Fort Marcy Hill contemporaneous with the fort. The present study results strongly support the historical record which suggests that Fort Marcy was never garrisoned. Conspicuously absent was cultural material associated with the construction or occupation of the fort. Virtually all cultural material encountered or collected was prehistoric. Period historic artifacts were limited to a bottle base, several glass sherds, and a low-fired white ware ceramic sherd. Historic Fort Marcy was constructed as a symbol of occupation and as a warning to the citizens of Santa Fe to accept the American presence. The historical record reflects no intention on the part of the U.S. Army to use the fort and, the archaeological record documented during the present project provided no evidence to the contrary.

Important subsurface deposits likely to be present include wall footings and trenches associated with the blockhouse and the powder magazine, and the remains of the cemetery which the historical record suggests was established on or at the base of Fort Marcy for victims of a measles epidemic in the winter of 1846. Figure 5.2 depicts one large room and six smaller ones with passages between them in the blockhouse. Additional excavation might indicate whether or not this structure was used for materiel storage or for any other purpose. Records from the mid 1850s indicate that erosion on Fort Marcy exposed a number of bodies from a burial ground dating to the Mexican War (Wozniack 1992:9). The fact that the burials were exposed within a single decade imply that the cemetery was located in a physiographic location subject to erosion, such as the slope of Fort Marcy Hill. Also likely to be in existence are the remains of the burial grounds present at the time Fort Marcy was constructed.

Surface collections; visual observations of the landscape surface, cutbanks, and disturbed areas; and evidence from excavation units confirmed the presence of a large Anasazi component underlying the fort. Gilmer's "ash heap" on Fort Marcy Hill was, in fact, a massive Anasazi midden with depths, as suggested by Gilmer, of at least 8 ft (2.4 m). Midden deposits were ubiquitous in the test units excavated. Testing indicated that these deposits extend throughout the park property but failed to document their depth nor the location of pit structures or wall alignments. The small ceramic sample recovered from the site suggested a primary occupation from A.D. 1050 to 1150. Conspicuously absent were later Pueblo III types although Mera (n.d.) reported the presence of Santa Fe Black-on-white from either the hilltop or the valley below. Several sherds suggest a later occupation from A.D. 1350 and 1450 and from the post A.D. 1700 time period.

Phase I and II studies have identified a number of events and impacts which have affected cultural deposits on Fort Marcy Hill. These include:

1. The interment of bodies on Fort Marcy Hill prior to the establishment of the fort,
2. Earth leveling operations likely preceding fort construction,
3. Extensive excavations conducted in the moat and in foundations of the magazine and blockhouse during fort construction,
4. Roads criss-crossing the surface of the site in the early 1900s,
5. The construction of houses surrounding Fort Marcy Park, and
6. In establishing Fort Marcy Park, subsequent modification to the hill.

Cut and fill operations to level the surface of the fort are suspected on the basis of the unnaturally flat topography of the hilltop. It is likely that cutting operations may have severely disturbed or destroyed some deposits, but fill operations might have preserved others in a fairly intact manner. Fort construction undoubtedly severely impacted cultural deposits in the vicinity of the moat and in the foundations of the blockhouse and powder magazine. Intact prehistoric deposits may well be preserved below the blockhouse, magazine, and ramparts where they have been protected from subsequent damage resulting from house construction and park modification. The presence of additional burials was confirmed during the installation of the sprinkler systems (Wozniack 1993:3).

6.2 RECOMMENDATIONS

Should additional archaeological work be conducted at Fort Marcy, hand and mechanical trench excavation are proposed. Hand trench excavation is recommended in historic feature areas for the purpose of exposing profiles of historic features and for the purpose of exposing suspected wall foundations and footings. Excavations in historic feature locations might also reveal the presence of undisturbed Anasazi deposits which are likely preserved beneath the fort. It is recommended that 1 x 4 m hand trenches be excavated to sterile soil in the ramparts, in the suspected powder magazine, and in the blockhouse. Hand trenches should be excavated perpendicular to the ramparts as shown in Figure 5.1. Hand trenches

in the suspected powder magazine and blockhouse should be excavated from the mound edge toward the center to further document stratigraphy associated with the historic features and their foundations and to search for intact deposits relating to the Anasazi component of the site. Only after these excavations have been completed should the use of mechanical excavation in the vicinity of fort features be considered.

At least two intersecting mechanical trenches should be excavated using a small, rubber-tired mechanical trenching tool in featureless portions of Fort Marcy Hill in search of buried historic and prehistoric architecture and deposits. All mechanical excavation should be carefully monitored by qualified archaeologists. Mechanical excavation should cease immediately if architectural remains are encountered. The features should be further defined and recorded using hand excavation techniques.

7.0 REFERENCES

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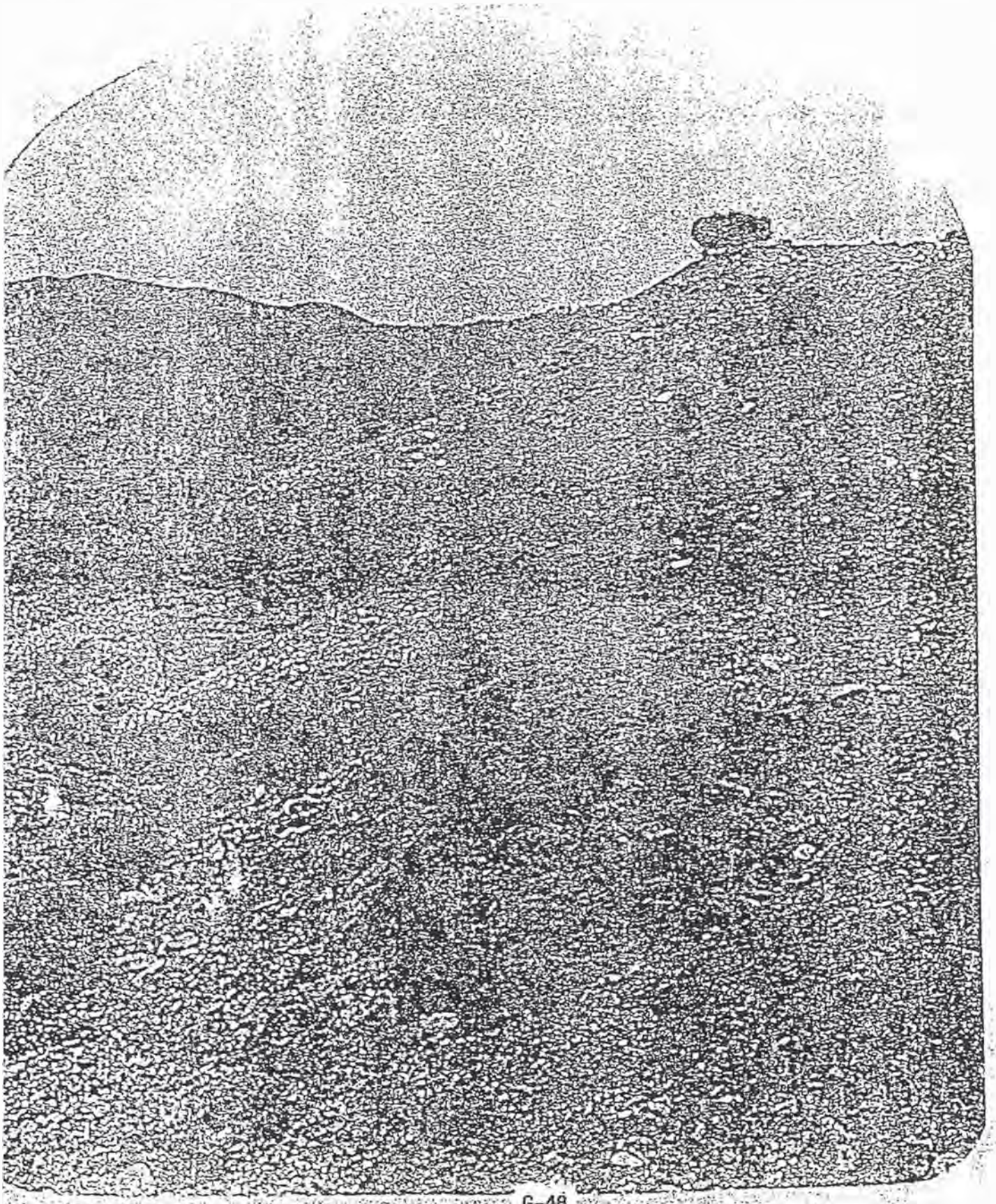
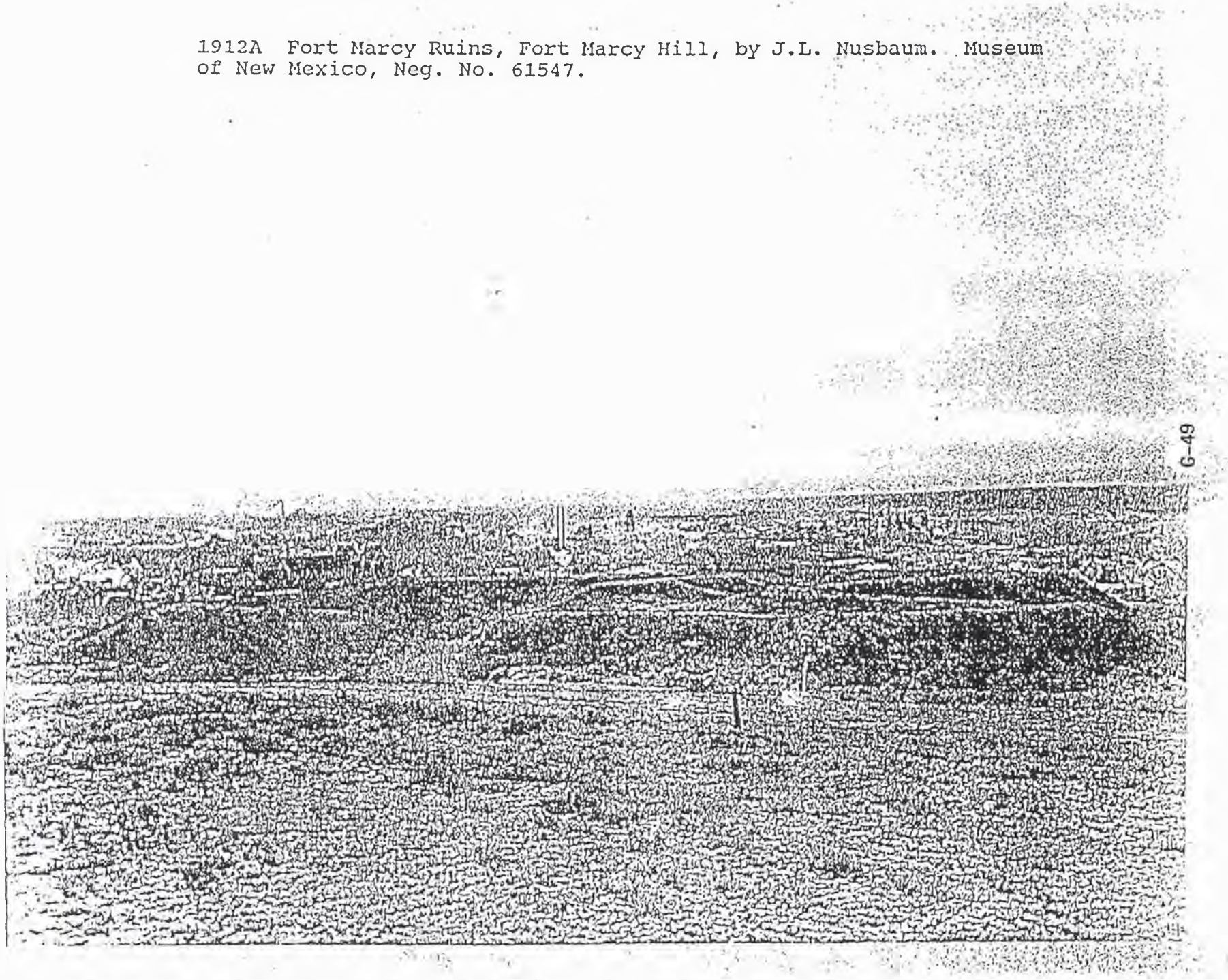
APPENDIX A:

HISTORIC PHOTOGRAPHS

1800 Ruins of Old Fort Marcy, by W.P. Bliss. Courtesy of Museum of New Mexico, Neg. No. 117674.



1912A Fort Marcy Ruins, Fort Marcy Hill, by J.L. Nusbaum. Museum of New Mexico, Neg. No. 61547.



6-49

1964, Aerial View, Fort Marcy Hill, by Tony Perry. Museum of New Mexico, Neg. No. 38348.

LABORATORY OF ANTHROPOLOGY PROJECT/ACTIVITY RECORD

1. PROJECT DATA

NMCRIS Project Number:_____ Parent Project Number:_____

Sponsoring Agency: City of Santa Fe

Project ID:_____ Project Name:_____

Project Dates (dd-mmm-yyyy): 16-APR-1994 to 29-JUL-1994

Project Type (choose one): [x]cultural resource management [ ]regional or topical overview [ ]research project
[ ]other project type:_____

Project Description (optional):_____

Proposed Action:	[ ]materials pit/stockpile	[ ]transmission line	[ ]military target site	[ ]reservoir/dam
[x]research project	[ ]railroad	[ ]seismic line	[ ]land exchange	[ ]water system
[ ]drill hole	[ ]road/highway	[ ]fence line	[ ]land management project	[ ]other action:_____
[ ]mining	[ ]buried pipeline/cable	[ ]trail	[ ]building/facility	_____

Other Permitting Agencies:_____

2. ACTIVITY DATA

NMCRIS Activity Number:_____

Performing Agency: Mariah Associates, Inc

Activity ID:_____ Activity Name:_____

Activity Dates (dd-mmm-yyyy): 16-APR-1994 to 29-JUL-1994

Activity Type: [ ]research design preparation [ ]archeological excavation [ ]monitoring or damage assessment
[ ]cult. res. overview/lit. review (Class 1 Surv.) [ ]archeological survey (Class 2 or 3 Surv.)
[ ]ethnographic study [x]archeological testing [ ]collections and non-field studies
[ ]other activity:_____

Activity Description (optional):_____

Studies and Analyses Performed:	[x]lithic technology	[x]lithic tool typology	[x]ceramic technology
[x]ceramic typology	[x]faunal analyses	[ ]human osteology	[ ]archeomagnetic dating
[ ]obsidian hydration dating	[ ]radiocarbon dating	[ ]tree ring dating	[ ]pollen, phytolith analysis
[ ]macrobotanical analysis	[ ]site distribution	[ ]isolated artifact distribution	[ ]architectural studies
[ ]historic artifact analyses	[x]historic records studies	[ ]soils, stratigraphy, geomorphology	
[ ]geology, lithic materials sourcing		[ ]ethnographic interviews/oral history studies	

[ ]other studies:_____

3. SURVEY ACTIVITIES

Total Area Surveyed:_____ acres Total Activity Area (if < 100% coverage):_____ acres

Survey Intensity (choose one): [ ]intensive (BLM Class 3; 100%) [ ]reconnaissance (BLM Class 2; < 100%)

Survey Configuration: number of survey units:_____ [ ]block survey units [ ]linear survey units
[ ]other survey units:_____

Survey Scope (choose one): [ ]non-selective [ ]selective/thematic

Survey Coverage (choose one): [ ]systematic pedestrian coverage [ ]other coverage method

Standard Survey Interval:_____ Standard Crew Size:_____

3. SURVEY ACTIVITIES (CONT.) 2

NMCRIS Activity Number:_____

Source Graphics: [ ]copies in report [ ]copies attached to report or form
[ ]USGS 7.5' topographic maps [ ]rectified aerial photos (Scale:_____)
[ ]other topographic maps (Scale:_____) [ ]unrectified aerial photos (Scale:_____)
[ ]GPS Unit [ ]other source:_____

Survey Results: Sites Discovered and Registered:_____ Total Number of Sites Visited:_____
Sites Discovered and Not Registered:_____ Total Isolated Occurrences:_____
Previously Recorded Sites Revisited:_____ [ ]Non-Selective IO Recording?

Land Ownership:	State	Acres Surveyed
_____	_____	_____
_____	_____	_____

Counties/States Surveyed:_____

USGS Quadrangles Included in Surveyed Area:
Quadrangle Name/Date:_____ Quadrangle Code:_____
Quadrangle Name/Date:_____ Quadrangle Code:_____
Quadrangle Name/Date:_____ Quadrangle Code:_____
Quadrangle Name/Date:_____ Quadrangle Code:_____

Previously Registered Sites (LA nos.):_____
New Sites (LA nos.):_____

4. NON-SURVEY ACTIVITIES

Investigated Sites (LA nos.): LA 111, LA 609 Ft Marcy site

5. REPORT INFORMATION

Document Type (choose one): [ ]manuscript [ ]article in a magazine
[x]report, monograph, or book [ ]volume in a report series [ ]dissertation or thesis
[ ]title in an edited collection [ ]article in a journal [ ]paper presented at meeting
[ ]other document type:_____

Year Issued: 1994 [ ]no date [ ]draft?: Main Author: John Acklen

Additional Authors: John Evaskovich, Christopher A. Turnbow

Title #1: Results of Archeological Investigations of Old Fort Marcy, Santa Fe, New Mexico

Title #2 (additional citation data):_____

Prepared By: Mariah Associates, Inc

Preparing Agency Report No.: MAI 1141

Published By (publisher, city, state):_____

Report Recipient: City of Santa Fe

Other Agency Report Nos.:_____

LABORATORY OF ANTHROPOLOGY SITE RECORD

1. IDENTIFICATION & OWNERSHIP

LA Number: 111, 609 [x]Site Update?

Site Name(s): Old Fort Marcy

Other Site Numbers: Agency Assigning Number:

Current Site Owner(s): City of Santa Fe

2. RECORDING INFORMATION

NMCRIS Activity Number: pending

Field Site Number: none Site Marker?: [x]no [ ]yes (specify ID#):

Recorder(s): J. Evaskovich, D. Barsanti, D. Campbell, M. Dilley

Agency: Mariah Associates, Inc. Recording Date (dd-mmm-yyyy): 16-APR-1994 to 29-JUL-1994

Site Accessibility (choose one): [x]accessible [ ]buried [ ]flooded [ ]urbanized [ ]not accessible

Surface Visibility (% visible; choose one): [ ]0% [ ]1-25% [ ]26-50% [x]51-75% [ ]76-99% [ ]100%
Remarks:

Recording Activities:
- [ ]sketch mapping
- [x]instrument mapping
- [x]surface collection
- [x]in-field artifact analysis
- [x]photography
- [ ]shovel or trowel tests
- [x]test excavation [ ]excavation (data recovery)
- [ ]other activities:

Description of Analysis or Excavation Activities: Mapping with electronic total station and data collector. In-field analysis of artifacts as well as artifact collection. Test excavation units 0.5 x 0.5 m and also auger tests.

Photographic Documentation: Black and white prints and color slides approximately 24 exp each.

Surface Collection (choose one):
- [ ]no surface collections
- [ ]uncontrolled surface collections
- [ ]collections of specific items
- [x]controlled surface collection (sample)
- [ ]controlled surface collections (complete)
- [ ]other collection method:

Surface Collection Methods: Judgemental collection of a sample of diagnostic artifacts.

Records Inventory:
- [x]site location map
- [ ]sketch map(s)
- [x]instrument map(s)
- [x]excavation, collection, analysis records
- [x]photos, slides, & associated records
- [ ]other records:
- [ ]field journals, notes
- [ ]NM Hist. Building Inventory form

Repository for Original Site Records: Laboratory of Anthropology

Repository for Collected Artifacts: Laboratory of Anthropology

LA Number: 111, 609 Field Number

9. CULTURAL/TEMPORAL AFFILIATIONS (cont.) 6

Component #2

Cultural Affiliation (choose one): [ ]Paleoindian [ ]Archaic [ ]Anasazi [ ]Mixed Mogollon and Anasazi [ ]Mogollon
[ ]Casas Grandes [ ]Hohokam [ ]Plains Village [ ]Plains Nomad [ ]Navajo [ ]Apache [ ]Ute [x]Pueblo
[ ]Hispanic [ ]Anglo/Euro-American [ ]Unknown affiliation [ ]other affiliation:

Basis for Temporal Affiliations (choose one): [ ]not applicable (temporal affiliations unknown)
[ ]based on associated chronometric data or historic records [x]based on associated diagnostic artifact or feature types
[ ]based on analytically derived assemblage data or the recorder's archeological experience

Period of Occupation (leave Begin/End Date blank to use default occupation dates):
Earliest Period: Historic Pueblo Begin Date: post A.D. 1700 End Date:
Latest Period:

Dating Status: [ ]radiocarbon [ ]dendrochronology [ ]archeomagnetism [ ]obsidian hydration
[x]relative dating methods [ ]other methods:

Observations on Cultural/Temporal Affiliations: Tewa paste redware

Site/Component Type (choose one): [ ]Simple Feature(s) [x]Artifact Scatter [ ]Artifact Scatter with Features
[ ]Single Residence [ ]Multiple Residence [x]Residential Complex/Community [ ]Industrial
[ ]Military [ ]Ranching/Agricultural [ ]Transportation/Communication
[ ] other type:
Remarks: see previous component remarks
Associated Phase/Complex Names:

Component #3

Cultural Affiliation (choose one): [ ]Paleoindian [ ]Archaic [ ]Anasazi [ ]Mixed Mogollon and Anasazi [ ]Mogollon
[ ]Casas Grandes [ ]Hohokam [ ]Plains Village [ ]Plains Nomad [ ]Navajo [ ]Apache [ ]Ute [ ]Pueblo
[ ]Hispanic [x]Anglo/Euro-American [ ]Unknown affiliation [ ]other affiliation:
Basis for Temporal Affiliations (choose one): [ ]not applicable (temporal affiliations unknown)
[x]based on associated chronometric data or historic records [x]based on associated diagnostic artifact or feature types
[ ]based on analytically derived assemblage data or the recorder's archeological experience

Period of Occupation (leave Begin/End Date blank to use default occupation dates):
Earliest Period: Historic Begin Date: A.D. 1846 End Date:
Latest Period:

Dating Status: [ ]radiocarbon [ ]dendrochronology [ ]archeomagnetism [ ]obsidian hydration
[x]relative dating methods [x]other methods: Historic research

Observations on Cultural/Temporal Affiliations: Ft was built by the U.S. in 1846-47. Artifacts include brown glass and opalized clear glass.

Site/Component Type (choose one): [ ]Simple Feature(s) [ ]Artifact Scatter [ ]Artifact Scatter with Features
[ ]Single Residence [ ]Multiple Residence [ ]Residential Complex/Community [ ]Industrial
[x]Military [ ]Ranching/Agricultural [ ]Transportation/Communication
[ ] other type:
Remarks: Remains of earthworks.
Associated Phase/Complex Names:

10. FEATURE DATA

Feature Type	*Reliable ID?	No. Observed	**Assoc. Component Nos.	Feature ID, Notes
Blockhouse	yes	1		Fea 1
Rampart	yes	1		Fea 2
Moat	yes	1		Fea 3
Anomalous Depression	yes	1		Fea 4

*enter "?" for uncertain identifications ** enter zero for unknown component associations

LA Number: 111, 609 Field Number

10. FEATURE DATA (cont.) 8

Feature Type	*Reliable ID?	No. Observed	**Assoc. Component Nos.	Feature ID, Notes

*enter "?" for uncertain identifications ** enter zero for unknown component associations

Feature Remarks:

11. REFERENCES

Written Sources of Information (skip this item if a LA Project/Activity Record has been completed; use American Antiquity style citations):

Other Sources of Information: Wozniak, 1992, Wilson, 1989, and Keleher, 1952

12. NARRATIVE DESCRIPTION 9

Although the location has been variously referred to as LA 111, LA 608, and LA 609, two Laboratory of Anthropology (LA) site numbers, LA 111 and LA 609, are currently assigned to Old Fort Marcy Hill. The Archaeological Records Management System (ARMS) records in Santa Fe indicate that the two numbers reflect distinct occupations: LA 111 was originally assigned to the prehistoric occupation of the hill and LA 609 was later assigned to the fort. Although the use of dual numbers for a single site is unusual, their perpetuation reflects the fact that both are published (Lou Haecker, personal communication to John Acklen on August 5, 1994).

While extant records do not indicate who originally recorded the Fort Marcy location, it is certain that H.P. Mera visited the site, mapped it (Mera Map No. 893), and made prehistoric ceramic collections from the hilltop location and valley below which are referenced in Museum collections under LA 111 (Sheet no. 893). Ceramics collected by Mera on and about that location include Red Mesa Black-on-white, Kwahe'e Black-on-white, and Santa Fe Black-on-white.

The ARMS records are silent as to who used LA 608 to refer to Fort Marcy; however, a memo to Jack Wilson from Dedie Snow dated January 12, 1973, leaves no doubt that it was utilized. According to the memo, the historic component at Fort Marcy did not have a number at that time and LA 609 referred to a site in the San Luis valley about 8 miles from Alamosa in Colorado. The memo asks whether LA 609 had been published and if so, suggests that it be retained to refer to Fort Marcy. Apparently the LA number had been published for in a subsequent site card dated June 9, 1977, Stewart Peckham notes that LA 609 was originally assigned to a sherd area recorded by Yeo in the San Luis valley but that sometime during the period from January 3, 1973, to March 19, 1977, that assignment was cancelled and the number re-assigned to the Fort Marcy complex.

Topographically, the fort is located on the end of a broken and arroyo-dissected ridgeline overlooking the city at an elevation of approximately 7,062 ft. The ridge on which the site is located is one of a series of dissected, southwest-trending ridges and hills ascending toward the Sangre de Cristo mountains to the east. Soils derive from the Ustic Torriothents association, which are characterized by a surface layer of light reddish-brown calcareous sandy clay loam or sandy loam that usually contains a few rounded igneous gravels and cobbles. The underying material, to depths of five feet or more, consists of weakly stratified gravelly sandy loam or sandy clay loam. Small to medium gravels of the Santa Fe group cover much of the surface. Strata of sand, gravels, and cobbles are common below a depth of approximately 40 inches (Maker et al. 1978).

The ridge in the vicinity of the site is flat-topped. Given Lieutenant Emory's comment that the "contour of the grounds is unfavorable" (Calvin 1957:57), it seems likely that Snow (1989) is correct in postulating that the surface was leveled with a fresno or other such device prior to fort construction. Those portions of the site included within the present park are landscaped and grass cover has resulted in poor surface visibility.

Remnants of at least three features related to the fort are clearly visible on the surface. These include the blockhouse, ramparts, and the moat. A low mound thought to be the magazine was documented on the inside of the ramparts and is discussed with that feature. In addition, an anomalous depression of unknown function, was documented as a feature. It was difficult to precisely define features given their poor preservation. Also, the features have been heavily impacted by roads, pictured in Appendix A, and other poorly known natural and human agents. The features as mapped during the present project are presented in Figure 5.1. Drawings derived from Gilmer and from an unspecified historic source are overlain on topographic bases in Figures 5.2 and 5.3.

5.2.1 Feature 1 Blockhouse

Historical documents describe the location of the blockhouse as 60 yards from the ramparts (Wilson 1989:109); however they disagree as to the techniques used in construction. Keleher (1952:109) described the structure as being built of one-foo square pine logs while Gilmer's correspondence (Wozniack 1992:6) clearly stated that the structure was composed of six-foo thick adobe walls. When work began on the blockhouse in the fall of 1846, Gilmer reported that excavations associated witl the foundations revealed a number of human skeletons. Work was discontinued during the early winter and presumably was completed during the spring and early summer of 1847. There are no documents which clearly indicate that work o the structure was ever completed (Wilson 1989:109; Wozniack 1992:9).

Archaeological testing confirmed the location of the blockhouse 60 m east of the ramparts. The feature identified as th

blockhouse today consists of a low, rectangular earthen mound with a central depression. The mound measures 25.0 x 20.0 m from outside edge to outside edge and is 1.75 m high. Five auger tests were excavated to a maximum depth of 1.1 m in the blockhouse mound. Three tests (AT 8, 13, and 14) revealed coarse sand and gravel overlying midden fill; the remaining two tests (AT 11 and 12) revealed the presence of midden fill to the base of the excavations. All of the tests were terminated on rock. It was not determined whether the rock, upon which tests were terminated, was cultural or natural. Archaeological evidence supports adobe brick construction. The coarse sand and gravel which characterizes upper levels in three of the five tests is likely the residue of adobe bricks leached of their clay. Furthermore, there was no evidence of wood or post molds in any of the tests. Given the six foot wall width reported by Gilmer, it can be deduced that the interior dimensions of the blockhouse measured 19 x 14 m which is 266 m^2 (ft^2).

5.2.2 Feature 2 Ramparts

In a letter dated November 1, 1846, Gilmer described the layout of Fort Marcy as an irregular, hexagonal polygon modified to fit the terrain. The fort was constructed by excavating fill material from a dry moat and using the fill to form the interior embankments or core of the ramparts, perhaps by using a rammed earth technique. The ditch was eventually excavated to a depth of eight feet and the ramparts were nine feet high for a total vertical relief of 17 feet. The revetments of the interior and exterior slopes were subsequently lined with adobe bricks (Wozniack 1992:5-7).

The ramparts today are marked by low, irregular-shaped earthen mound segments. Visible portions of the ramparts measure 80 x 50 m and the wall mounds range from hill level to a maximum height of 4 m measured from the top of the mound to the bottom of the moat which partially defines its outside edge. Wall mound widths range from a minimum of 3 m to a maximum of 7 m. The ramparts have been obliterated along their western perimeter where relief characterizing most of the feature, gradually grades into the contour of the hilltop. Like the blockhouse, the interior of the ramparts is marked by a distinctive depression equivalent in grade to the exterior of the mound.

Three auger tests (AT 18, 19, and 20) were excavated in the walls to a maximum depth of 50 cm and one test (AT 22) was excavated in the interior of the ramparts to a depth of 20 cm. Three of the four tests were terminated on rock while AT 20 was terminated on a calcareous soil interpreted as sterile. All of the tests revealed an ashy silt with charcoal, burned rock, and occasional prehistoric artifacts. No stratification was noted in any of the tests. From all appearances, the sediments which comprise the ramparts are redeposited midden soils.

A low earthen mound extends from the inside edge of the ramparts out into its center. The mound measures 15 x 10 m from outside edge to outside edge and is 0.5 m in height. This mound may be the remains of the powder magazine referred to in historical documents. The structure was not tested. Gilmer noted that numerous burials were found during the construction of the magazine in what was said to have been an Anglo-American graveyard (Wozniack 1992:1).

5.2.3 Feature 3 Moat

The construction of Fort Marcy began with the excavation of the dry moat which surrounded the ramparts. As moat construction entailed massive excavation, it is not surprising that many of the frequent burials were encountered during fort constructionm, were located in that feature. Records indicate that the moat was excavated to a depth of eight feet.

The moat, as documented during the present study, consists of a linear depression which parallels the contour of the hill. The inside wall of the moat is defined by the outer wall of the ramparts along its northern, eastern, and southern perimeters but is absent along its western perimeter. V-shaped in cross section, the moat is 2 to 5 m wide and up to 4 m deep at the base of the rampart walls. Approximately 160 m of the moat were well defined on the surface of the site. One section of the moat along the eastern perimeter of the fort appears to have been filled in for an access road which was probably used in the early part of the present century. Portions of the moat are clearly bermed, especially along its northern perimeter. Arroyos have channelized segments of the moat on the northern and southern ends of the site. The Fort Marcy Compound condominiums abutt portions of the northern end of the moat.

5.2.4 Feature 4 Anomalous Depression

Feature 4 consists of an irregular circular depression located to the southwest of the blockhouse. The depression ranges from 8.5 to 12 m in diameter and is 0.5 m in depth. The sidewalk through Fort Marcy Park passes through the center of the depression but does not appear to have signficantly impacted it.

Two auger tests were excavated in an attempt to determine the function of the depression. Auger Test 6 documented a dense clay containing midden fill to a depth of 90 cm below ground surface (BGS). Auger Test 23, placed just outside of the depression, documented a sterile, calcareous clayey silt with no artifactual inclusions.

The depression could be a cistern. Although early historic records clearly state that there was no water source on Fort Marcy Hill, a resident is reported to have fallen into a cistern at Fort Marcy during the 1850s (Wozniack 1992:9). An alternative possibility is that the depression was a pit structure associated with an Anasazi occupation of the hill. Both possibilities remain viable.

13. SITE RECORD ATTACHMENTS

[x]site location map (required) [x]sketch map or site plan (required) [ ]continuation forms
[ ]other materials (itemize):_____

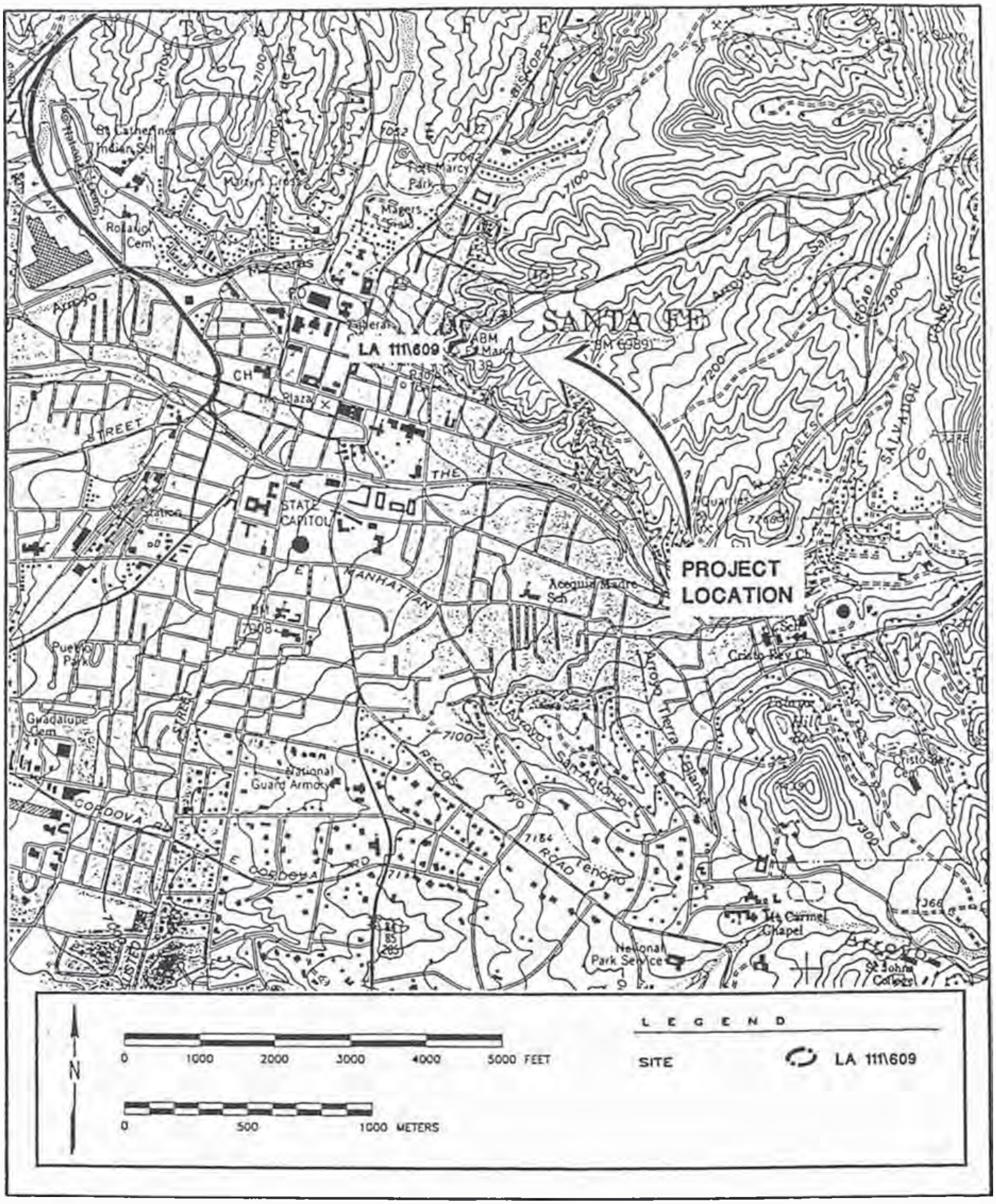


Figure 1.1 Site Location Map. Based on Santa Fe, New Mexico Quadrangle (1961, Photorevised 1977), USGS 7.5′ Series (1:24,000 Scale).

1141

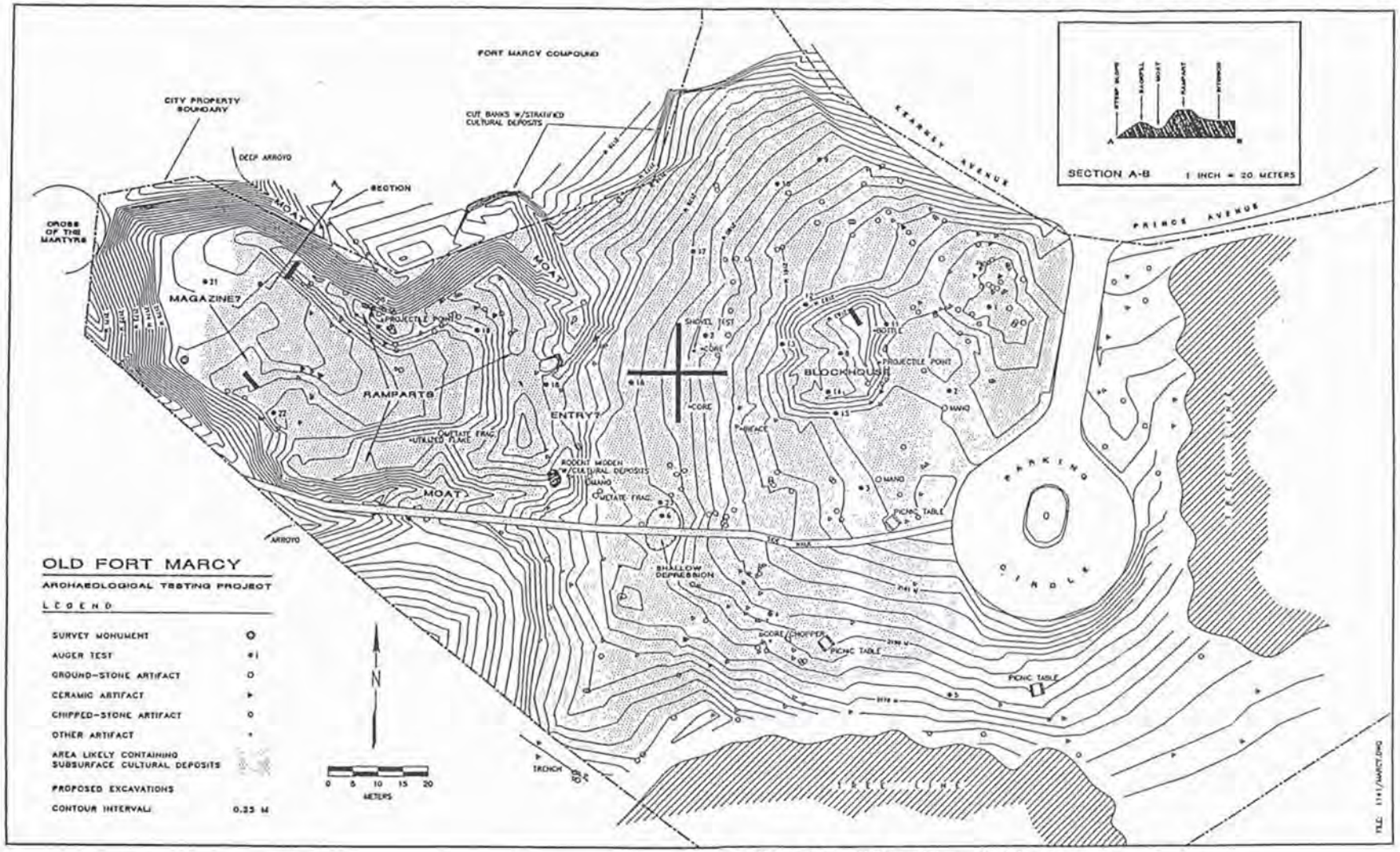


Figure 5.1 Old Fort Marcy Site Map.