

Eric Brandan Blind  
 Barbara L. Voss  
 Sannie Kenton Osborn  
 Leo R. Barker

## El Presidio de San Francisco: At the Edge of Empire

### ABSTRACT

El Presidio de San Francisco, the northernmost presidio of New Spain, was founded in 1776 as a reaction to the Russian economic expansion onto the Pacific coast of North America. Demographics indicate that the pool of colonial recruits bound for San Francisco came from regions with a diverse cultural matrix, including Native Californians, after the presidio was established. Over time, the colonial population became increasingly homogenous in recognizing its own ethnic identity. Although the location of the presidio of San Francisco was generally known prior to 1993, its exact location and the extent to which it was preserved archaeologically was unknown. The 1993 discovery confirmed its predicted general location but also revealed that its situation and configuration was somewhat different than that predicted by historic documents. Structural examinations of the site reveal considerable information about the settlement's architectural development, which became increasingly institutionalized. Ongoing laboratory investigations of excavated deposits from the site indicate that dietary practices differed somewhat from other settlements in Alta California. The archaeological interpretation of this frontier presidio requires both global and local perspectives to reckon influences as diverse as European geopolitics and frontier pragmatics.

### Introduction

El Presidio de San Francisco, founded in 1776, was the northernmost presidio established in New Spain. It was the administrative center of a presidial district that stretched from the northern reaches of San Francisco Bay south along the coast to present-day Santa Cruz. It was responsible for the defense of six missions (San Francisco de Asís, Santa Clara de Asís, San José, La Exultación de Santa Cruz, San Rafael Arcangel, and San Francisco Solano), two civil communities (the Pueblo of San José de Guadalupe and Villa de Branciforte), military and mission ranches, agricultural outposts, and a score of land-grant ranchos (Figure 1).

Archaeological research at the site began in the 1990s (Alley et al. 1992), although some historians had predicted the site's location as early as the 1920s. Significant subsurface features of the settlement were first discovered in 1993 (Voss and Benté 1996), which were more expansive than predicted. Long-term investigations at the site have continued to this date. The primary objective of this brief article is to summarize the settlement's history, provide comparative information, and to communicate the preliminary findings of our archaeological studies.

The history and archaeology of El Presidio de San Francisco intersects with histories of European expansion, advancement of the Enlightenment, and the entry of Alta California into the world market. For this reason, a global perspective is necessary to understand the unique development of this frontier settlement.

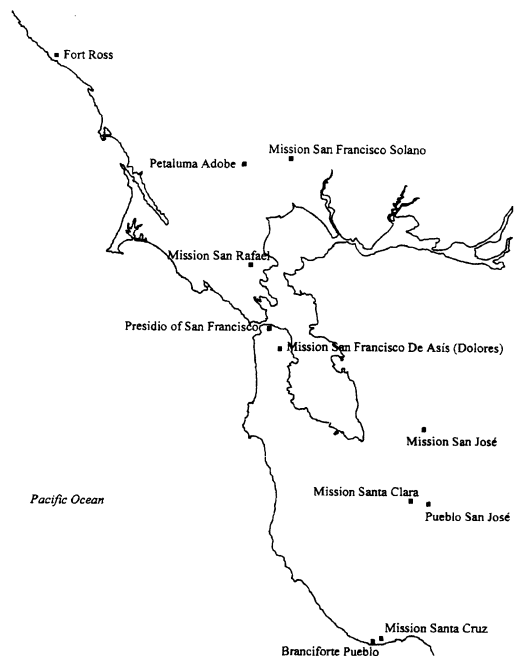


Figure 1. Map of San Francisco Bay Area showing locations of major Spanish, Mexican, and Russian settlements (Voss 2002:24).

### *Race to Empire*

The Russians are coming, the Russians are coming! No, this is not the 1966 movie (Jewison 1966), but it is analogous to the circumstances leading to the occupation of San Francisco. Much as Hollywood and the popular media influenced perspectives during the recent Cold War, 18th-century contemporary media reflected and swayed politics. In 1757, Jesuit Miguel Vanegas published the title *Noticia de la California*, warning Spanish officials of the threat posed by the well-publicized English search for the Straits of Anian (Northwest Passage) and similar ventures by the Russians. Two years later in 1759 a Franciscan, José Torrubia, published a book with the alarming title *Muscovites in California*, also warning of the threat of foreign incursions (Weber 1992:238).

The Russian eastward expansion from European Russia to the Pacific Ocean is frequently compared to the United States' settlement of the American West. The relentless seizure and occupation of vast territories east of the Urals, beginning in the 17th century, was "remarkable for both its speed and for the extent of the territories it embraced" and ultimately placed Russia as a powerful force in the Pacific (Pallot and Shaw 1990:14; Osborn 1997:15). With little modification, the same principles that had evolved in Europe and were successfully applied in Siberia, were now used in the North American expansion (Kerner 1946:88). Many commodities were important during Russia's colonial expansion; however, furs were "always the most valuable single item of trade from the very earliest beginnings to the eighteenth century and beyond" (Kerner 1946:8).

By the early-18th century, the Russians had acquired the entirety of Siberia, greatly reducing the population of native fur-bearing mammals with each successive movement eastward. The Bering expeditions (1728, 1741) provided a new impetus for merchants, fur traders, and Cossacks to turn to the sea and would eventually bring Russians to the shores of North America. The reasons for this total and extraordinarily rapid conquest of northern Asia and the subsequent colonization of Alaska are complex but include the continued economic drive for wealth obtained from furs. In addition, there was a national psychology, pervasive throughout

Europe, which permitted powerful nations to disregard the rights of indigenous populations and claim "new" lands for themselves (Lantzeff and Pierce 1973:17,227).

The Spanish were trying to grapple with their vast new territories after the Treaty of 1760 when the French gave Spain their lands west of the Mississippi. As Max Moorhead observed: "Siberian-based Russians were exploring and hunting sea otters in the Aleutian Islands. Although these operations were taking place thousands of miles beyond the most northwestern Spanish settlement in the New World, they were viewed in official circles with unusual alarm" (Moorhead 1975: 56). The defensive expansion of presidios along the Pacific Coast of northern New Spain (San Diego, Santa Barbara, Monterey, and San Francisco) functioned primarily to "forestall the maritime invasions of European forces" and was "determined by the real or imagined encroachments of the French, Russians, and English" (Moorhead 1975:27-29).

Viceroy Bucareli of New Spain expressed his concern. "I deem it well that any establishment of the Russians on this continent or of any other power ought to be guarded against ... to avoid the consequences that would follow from having neighbors other than the Indians" (Engstrand 1998:92). In Spanish courts, it was apparently conceivable that the Russians could establish a colony at the port of Monterey, which Spain had been interested in since Vizcaíno's 1602 exploration of the Alta California coast. "Russian naval officers would have felt flattered, had they known how far the ripples of their tentative and limited activities off North America had spread" (Barratt 1981:67). By the close of the 18th century, the Russians had become well established in the Aleutians and Alaska; however, the receding range of the sea otter population required longer voyages and brought lower economic gains to the fur trading companies headquartered in Siberia. The Russians had to sail further and further east in search of suitable hunting grounds that, at the beginning of the 19th century, took them to the California coast. California was the end of both the Russian expansion and the range of the sea otter (Gibson 1969:31-32; Osborn 1997:49). For a brief moment in the early-19th century, the Presidio of San Francisco and the Russian

colony of Ross were situated, respectively, on the northwestern edge of New Spain and the southeastern edge of Russian America. A mere 60 miles separated the two.

### *Founding of the Presidio of San Francisco*

During the early months of 1769, New Spain initiated ventures by both land and sea designed to “meet the Russian threat” (Weber 1992:243). Among these was the land expedition led by Gaspar de Portolá. Having recently completed the Jesuit expulsion from Baja California, the powerful Visitador General José de Gálvez tapped Portolá to find a route to Monterey Bay. Portolá and his party, upon reaching the proper latitude but disbelieving the bay before them was in fact Monterey, continued north. Some leagues further along, what was initially described as *el brazo del mar* (the arm of the sea), halted their northern progress. Upon recognizing the grandeur of the bay before them, Franciscan missionaries quickly took to calling it *Bahía de San Francisco*. “However dimly they understood its geography, members of Portolá’s party recognized the significance of San Francisco Bay itself. ... Thereafter, San Francisco Bay, the finest natural harbor on the Pacific Coast, figured into Spanish calculations for expansion” (Weber 1992:244–245).

Ambitious bureaucrats and eager missionaries pressured Viceroy Bucareli to expand quickly into the San Francisco Bay area. Bucareli acceded to their requests to strengthen coastal defenses and to occupy the area around San Francisco Bay. In 1773, he approved naval expeditions “to sail beyond San Francisco to search for foreigners and to select sites for further Spanish defensive settlements.” In January 1774, Juan Pérez left the naval port of San Blas on the frigate *Santiago* on a voyage whose destination the Viceroy hoped to keep a secret but that quickly became known as “going to Russia” (Weber 1992:249–253). Although he did not go to Russia, he re-established Spanish claims to the Pacific Northwest. The same month, frontier officer Captain Juan Bautista de Anza began his now-famous quest for an overland route to the grand bay named San Francisco.

Strategy for colonizing Alta California was a matter of contention among the patron figures in colonial California: Visitador José de

Gálvez and Fray Junípero Serra. Juxtaposing these two characters demonstrates the conflicts between church and state that permeated the empire at that time.

The zealous, martyr-seeking Serra preferred only a modest military escort for his proselytizing efforts. He feared the *gente de razón* (literally “people of reason” herein meaning all non-Indians) would not only corrupt the neophytes converted by the missionaries, but also that the *gente* would ultimately preempt land that should go to the Indians, dominate the affairs of the province, and that the Indians would end up exploited by them (Mason 1998:20). The Franciscan Serra sought the kind of control the powerful Jesuits formerly had in Baja California, where missionaries were empowered to select soldiers of their liking to live at and work for the mission, which would otherwise be insulated from the *razón*.

The far more powerful Gálvez, in contrast, was a student of the Enlightenment who believed in secular expansion. The *visitador* had been instrumental during the 1767 expulsion of the powerful Jesuit order from the New World by overseeing the seizure, arrest, and deportation of all the missionaries. Gálvez envisioned military expansion into Alta California as part of the Bourbon defense plan, serving to check foreign encroachment into the more valuable provinces of New Spain (Sanchez 1990:32). Lack of capital and the *visitador*’s wide range of duties had Gálvez ironically turning to Franciscan missionaries for the California expansion, the only group experienced at managing Indians at a low cost (Weber 1992:242).

### Social Settlement

The native population of the San Francisco Bay shores and contiguous Coast Range valleys prior to colonization “may have been as low as 15,000 or as high as 20,000 people” (Milliken 1991:34). The Bay Area population was divided into “approximately 55 independent tribes” (Milliken 1991:25) who spoke five mutually unintelligible languages. It is estimated that the “large villages in the area contained between 200–400 inhabitants” (Milliken 1991:34).

In 1776, another cultural group would settle in the Bay Area. This alien group spoke a sixth unintelligible language, and although their

population might not meet the criteria for a "large village," they would come to dominate the region. In fact, by 1810 there would be 11,036 native people representing 45 tribes from the region converted to their ways (Miliken 1991:343,1).

From September 1775 to June 1776, Juan Bautista de Anza led the land expedition from the presidio at Tubac to establish a presidio and mission at San Francisco. The expedition party numbered 240 in all. Of this total, 191 eventually settled in San Francisco with the remainder settling in Monterey. According to a list of recruits destined for San Francisco compiled by Anza before leaving Tubac, less than half of the total were adults (44%). Of the adults, 56% were male and 44% were female. The remaining 56% of the total were children 15 years of age and younger (Mason 1998:30–35). Franciscan missionaries did not get selective control over the presidio and pueblo populations, but their petitions did result in the selection of soldiers and settlers who had families. In the eyes of the missionaries, they were better role models than bachelor soldiers who were seen as corruptive and intractable.

Since immigration never exceeded a trickle, growth in population throughout the period, which reached near 400 (Dwinelle 1867:110) prior to the Mexican War of Independence, can be attributed to the high fertility and low infant mortality rates enjoyed by these settler families (Weber 1992:265). The 1790 census reveals more about the presidio's demographics. Percentages for adult males, females, and children remained consistent with previous figures. A majority of the adults listed were among the original 1776 settlers. More information emerges on both Anza's recruiting efforts and the rationale behind relocation for these colonists. A full 58% of the adult population was originally from Sinaloa and Sonora. The remaining 42% came from adjacent regions of northwestern New Spain with one notable exception—the lone individual from Spain, a retired soldier who had married an Alta California native.

Sinaloa and Sonora were areas ripe for recruitment at that time. The northern Sonora frontier had withered during the 1760s–1770s because of Seri and Apache raids, which had already forced many to seek more protected

locations in or around established presidios. In 1770 Sinaloa and southern Sonora succumbed to major flooding, which left hundreds perhaps thousands homeless in affected areas and, coupled with declining mining production throughout the region, caused serious economic enticements for relocation (Mason 1998: 66–67,100–104).

The majority of people from the heavily recruited regions had already inherited centuries of mixed ancestry resulting from the Mesoamerican conquests of the 16th and 17th centuries. Racial purity, a traditional prerequisite for elite status, proved less essential in the 18th century. Relocation to the frontier, where priests often took declarations of race at face value, was an opportunity for real or perceived upward mobility and provided mestizos, mulattos, and Hispanicized Indians many opportunities to transcend racial barriers. By 1790, 54% of the populace at San Francisco was classified as *español* with the remainder being mestizo (27%), *indio* (12%), and mulatto (7%). This tapestry of interwoven ancestry continued through a process of reduction. What evolved was a two-class society consisting of the *gente de razón* and Indians (Jones 1979:218–219; Weber 1992:326–328; Mason 1998:100–104). By 1814, Franciscans at nearby Mission San José in replying to an official questionnaire noted, "the only two *castas* we know of here are *gente de razón* and Indians. All the former are considered Spaniards although there may be some among them of the same mixtures as in other parts of America. However, in this peninsula no differences have been stressed since the time of conquest" (Geiger and Meighan 1976:13–14).

#### *Soldiers, Supplies, and Duties*

Among the *gente de razón* in the region, and comprising a prominent population thereof, were the soldiers who garrisoned the presidio, the *soldados de cuera* (leather jacket soldiers) (Figure 2). The iconic *cuera* refers to a three-quarters-length sleeveless leather jacket, made from four to six thicknesses of hide stitched together. It has been inferred that it was derived from a mixture of Old World armor and the Aztec *ichcipilli* and, in some respects, symbolized the cultural matrix of the troops

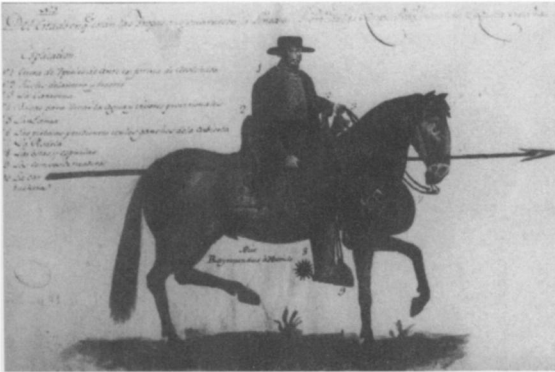


Figure 2. *Soldado de Cuera*, 1804 (Langellier and Rosen 1992:51).

who wore the garment (Langellier and Rosen 1992:13). In addition to this, the soldiers were meant to be equipped with six horses, one colt, one mule, a *vaquero* style saddle, *armas* (leather apron to protect the rider's legs), *botas* (leather leggings), *adarga* (leather shield), *espada ancha* (broad sword), *lanza* (lance), *escopeta* (musket), and *pistolas* (pistols) (Brinckerhoff and Faulk 1965). Early accounts reveal the disparity between Royal Regulations of 1772 and frontier realities. The annual inventory for 1778 reveals that approximately half the troops lacked swords, lances, muskets, and pistols. Horses necessary for cavalry duty were in short supply, and two-thirds of the men owned neither saddles nor the protection of the iconic leather jackets for which they were named (Langellier and Rosen 1992:13).

*Soldados* were most often abroad while engaged in their myriad of responsibilities. Their far-ranging and extended duties would leave women and children as the dominant majority at the presidio daily. In 1795, *soldados* stationed at the presidio numbered 35; however, the presidio's immediate complement was only 8. The strength of the local force was seemingly so insignificant that in September of that year, 280 neophytes felt confident to run away from nearby Mission San Francisco. This situation, and others, demonstrated how thinly spread presidio soldiers were throughout the region. A tribunal in Mexico recognized that

California troops have duties distinct from other soldiers of the kingdom and suffer fatigues that do not belong

to their profession, such as courier, vaquero, farmer, shepherd, and laborer which barely leave them time for necessary rest. It is necessary to relieve them from these various duties. ... (the government) should appoint regular vaqueros, shepherds, and butchers so that the soldiers may be freed (Langellier and Rosen 1992:44–45).

The government did not follow the tribunal's recommendation. Paradoxically more soldiers were deployed. The next year a special infantry unit from Spain known as the Catalanian Volunteers came to Alta California. By April 1796, the 75-man company was divided into smaller detachments at San Diego, Monterey, and San Francisco. Their leader, Colonel Pedro de Albemni, by means of seniority, became Commandant of the Presidio at San Francisco. The intention behind deploying these soldiers was to incorporate another civil institution—a villa—in the occupation of Alta California. The idea was to situate an inexpensive population of farmer-soldiers and their families for the purpose of deterring foreign aggression and quickly civilizing Indians of the region (Sanchez 1990: 98,122–123). The timing and strategy behind the villa was perhaps influenced by the success of farmer-soldiers (militias) in colonies once held by the British. The establishment of nearby Villa Branciforte, named after Viceroy Branciforte, occupied much of the Catalonians' time, while in San Francisco they busied themselves with construction efforts both at the Presidio and the Castillo de San Joaquin, located on the nearby coastal bluffs. Construction was routinely undertaken with labor supplied by the soldiers but, as was always the case, greatly complemented by the native population.

Although San Francisco was supposed to have one carpenter and two smiths, the garrison was without either trade. Instead one individual, Manuel Boronda, was tasked with double duty and listed as soldier-carpenter (Schuetz-Miller 1994:201–203). The majority of labor, skilled or unskilled, was recruited from native populations. Affected Indians from the region include members of the Ohlone, Miwok, Patwin, and Yokut groups who were involved in construction and other recruitment efforts. Construction rosters for the *castillo* quantify the labor situation. Seventy-eight Indians toiled together during the construction of the *castillo*.

Included in this total were 48 non-Christianized Indians from neighboring *rancherías* (villages), working side by side with 30 neophytes from the missions. All but one of the latter group labored as punishment for infractions against the mission. Both groups received an allotted daily wage plus cotton breeches and a blanket (Langellier and Rosen 1992:41).

Physical Settlement

When colonists first arrived at the San Francisco peninsula, their dominant concern was shelter and survival until the arrival of the supply ship *San Carlos*. Until the ship arrived on 17 August, settlers erected and occupied jacal (hut) structures. After supplies arrived, Lieutenant Moraga and Pilot Cañizares laid out a quadrangle measuring approximately 90 varas (1 vara=33 in.) for the presidio. Their plan, shown in Figure 3, depicted a style conforming to prescriptions for the Provincias Internas after 1772 (Brinckerhoff and Faulk 1965). The squad of 20 sailors and 2 carpenters aboard the *San Carlos* undertook an expeditious construction effort for the completion of some of the institutional buildings (warehouse, commandant's quarters, and chapel). Soldiers and their families were left to construct their individual dwellings in whatever manner they were able or accustomed. All construction was described in the plan as *palisados* (palisade with mud), with the exception of the sergeants' house, which was made of stone. Apparently, the plan submitted of the presidio was embellished, or the actual construction was unaccomplished, because when Governor Felipe de Neve arrived the following year, he noted the institutional buildings were unsubstantial and described the individual dwellings as "mere huts." He ordered future construction to be of adobe brick placed on stone foundations (Langellier and Rosen 1992:14-17).

Some time passed between this order and implementation. Two years later, during winter 1779 excessive rains destroyed the chapel, casemate, storehouse, commandant's quarters, and 16 of the soldiers' dwellings, effectively erasing the majority of construction to date (Schuetz-Miller 1994:175). Reconstruction efforts began early the next year starting with the chapel. The remainder of the 1780s saw more of the same. With few exceptions, construction was

pursued in a vernacular fashion—*palisado* with *zacate* (straw) and tule reed roofs, while some temporary structures for families continue to be described as jacales.

The early historic record of the presidio is rife with accounts of dilapidated structures, inadequate materials, and the lack of skilled labor (masons, carpenters, and blacksmiths), culminating in a lengthy diatribe submitted in 1792 by acting Commandant Hermenigildo Sal. The report reads more as an indictment of a remiss colonial government than as an official report and concludes with this sentence: "All this that I manifest and expose is notorious and therefore I sign it" (Langellier and Rosen 1992: 34). Submitted with this diatribe was a plan of the presidio. Sal's 1792 plan, Figure 4, which is interpreted as an "as built," contradicts the 1776 Moraga plan which he, as an eye witness, states was never completed due to inclement weather and the lack of intelligent workers for the construction and direction of the work.

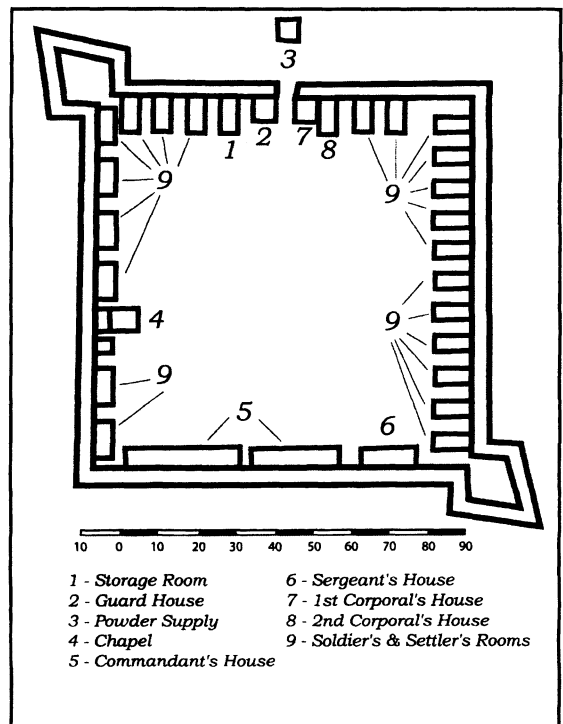


Figure 3. Scaled plan showing the rooms of the Presidio of San Francisco in 1776 based on Moraga's plan.

Seldom in the historic record do we have contemporaneous emic and etic descriptions of the presidio. One such year is 1792. In addition to Sal's document, British Captain George Vancouver sailed into the port that year aboard the *HMS Discovery* and recorded his impressions of the Spanish garrison. Vancouver confirmed the veracity of Sal's account and expounded upon it with his impressions.

We soon arrived at the presidio... The only object of human industry that presented itself was a square area, whose sides were about two hundred yards in length, enclosed by mud wall and resembling a pound for cattle. Above this wall the thatched roofs of their low, small houses just made their appearance. On entering the presidio, we found one of it's sides still unenclosed by the wall... The unfinished state of this part afforded us an opportunity of seeing the strength of the wall and the manner in which it was constructed. It is about fourteen feet high and five feet in breadth, and was first formed by uprights and horizontals of large timber, between which dried sods and moistened earth were pressed as close and as hard as possible... The apartment in the commandant's house, into which we were ushered, was about thirty feet long fourteen feet broad and twelve

feet high... The floor is of the native soil raised about three feet from its original level, without being boarded, paved or even reduced to an even surface. The roof was covered in with flags and rushes; the walls on the inside had once been whitewashed; the furniture consisted of a very sparing assortment of the most indispensable articles, of the rudest fashion and of the meanest kind; and ill accorded with the ideas we had conceived of the sumptuous manner in which the Spaniards live on this side of the globe (Wilbur 1953:13–16).

Accounts like those of Sal and Vancouver prove invaluable to understanding the early period of settlement. The first 20 years of construction is best understood through the historical record because corresponding elements in the archaeological record developed through a behavioral chain (after Schiffer 1976:49) of construction, disrepair, repair, destruction, removal, and relocation and looped through this segment an indeterminate number of times. This process resulted in an archaeological record with evidence of additions and subtractions of whole groups of elements (construction artifacts), but the elements in this system were most often reused and cycled through this behavioral segment several times. The archaeological record from this early period can be best described as a palimpsest or parchment that has been written upon and erased many times. The last words written on this archaeological parchment, however, are inscribed with clarity.

Of the excavated materials recovered to date throughout the site, the vast majority, regardless of the method of measurement (volume, mass, count), consists of *tejas* roof tile. Comparison of roofing elements, tule reed vs. clay tile, through time reveals a transformation in material culture that reflects the intangible acculturation process that was unfolding. As previously stated, the early history records structures described as *jacales* made entirely of tule as well as *palisados* with tule reed roofs. Construction with reed closely resembles the material and technique routinely employed by native populations of the immediate region (and vernacular architecture in general) than that of regulated institutions of the Spanish Empire. Furthermore, the behavioral chain segment (activity) associated with this roofing element (namely gathering tule) is also decidedly native/vernacular. Replacement through time of the roofing element to clay tile and the

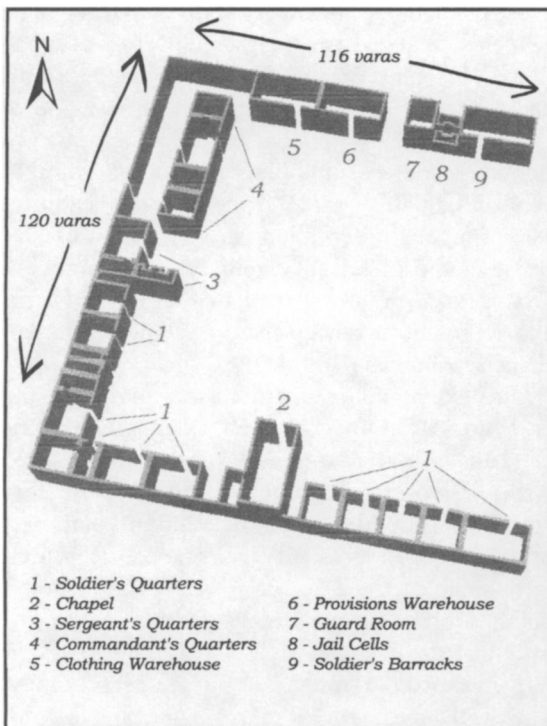


Figure 4. Scaled 3D model showing rooms of the Presidio of San Francisco in 1792 based on Sal's plan.

associated activity to mining and forming clay demonstrates the shift away from native/vernacular and towards colonial/institutional behaviors. Applying this analytical model to roofing elements using information from history and archaeology revealed changes in material culture and reflect intangible aspects of culture-like behavior.

The wholesale replacement of tule roof structures with *tejas* coincides with a major reconstruction effort under the command of Captain Argüello. The impetus for the 1815 reconstruction was pragmatic, strategic as well as aesthetic, and was undertaken in response to a major earthquake in 1812, the Russian presence at Fort Ross, and a burgeoning populations' aesthetic desire for something better. One of Argüello's contemporaries, Antonio Osio, recorded the following in his memoirs:

Once when he (Argüello) and his men were returning to the presidio at sunset after a day on horseback, he stopped on the crest of the low ridges which overlook the military square. From that vantage point, he pointed out to them that all of the homes were in poor condition. He suggested that, if they agreed and were willing, the homes could be quickly and completely destroyed and then tastefully rebuilt around a larger square, which would provide each house with a larger lot and better appearance ... he would soon see them all working on the project he wished to complete. Since everyone was in such a good mood, the new presidio square was sketched out by dawn the next day. Sergeants, corporals, and soldiers were appointed to begin to break ground and lay the foundation as soon as they could obtain the assistance of the Indians (Osio 1996:32).

The dimensions of the larger presidio are shown in Figure 5.

### *Site Structure and Integrity*

Archaeological research at El Presidio has been ongoing for less than a decade. Research focused first on an understanding of the general form and composition of the structural remains of the site and possible multiple periods of overall construction. Following the initial discovery of stone foundations in 1993, work continued intermittently until 1998 to clarify a set of apparently continuous foundations forming a large quadrangle, shown in Figure 5. This work was followed by detailed investigations of selected parts of the southern and eastern room

banks to understand further detail of the structural components of the chapel and residential barracks, as well as the depositional stratigraphy of each area. Finally, exposure of several features has begun to provide controlled samples for intrasite comparisons.

The presidio's 1815 layout is becoming clear, although earlier phases of construction from 1776 to almost 1812 remain ambiguous. The structure revealed is approximately 2.5 times larger than the Sal plan with exterior dimensions of 528 ft. (N-S) by 472 ft. (E-W). Each side is composed of a bank of rooms defined by two parallel wall foundations approximately 16.5 ft. apart. Room size varied with the positioning of narrow partition foundations, depending on room function. All the wall foundations are composed of irregular unworked serpentine and sandstone, from the local geologic formation and available for quarry along the nearby coastal bluffs. Individual wall foundations vary in width from 36 to 50 inches. To date only one cross-section excavation through the foundation has been completed. At the location of the 1780–1812 chapel, the wall was found to be 42 inches in overall depth and built using four courses of serpentine and sandstone. The foundations apparently extruded from 3 to 7 inches above historic grade during occupation (Voss and Benté 1996:43; Simpson-Smith and Edwards 2000:24; Ramsay and Voss 2002:66; Voss 2002). Relative to previous construction techniques, employing foundations of this size and quality, aside from offering stability, assist in the preservation of standing walls by resisting the effects of capillary action drawing ground and surface water into the adobe matrix and represent advancement in technique for San Francisco builders.

One extant colonial structure remains at the presidio—the Officers' Club. Though masked beneath several post-period veneers and a U.S. Army restoration attempt in the 1930s, this structure is a highly visible and pivotal part of the modern presidio landscape. Research is ongoing at the Officers' Club. The standing building offers an opportunity for vertical clarification of architectural style and techniques often left unresolved through subsurface archaeology. The walls measure 37 inches wide and exhibit remnants of both a mud lath and white plaster, most likely constituted of readily available sea-shells rather than lime. Plaster provides resis-



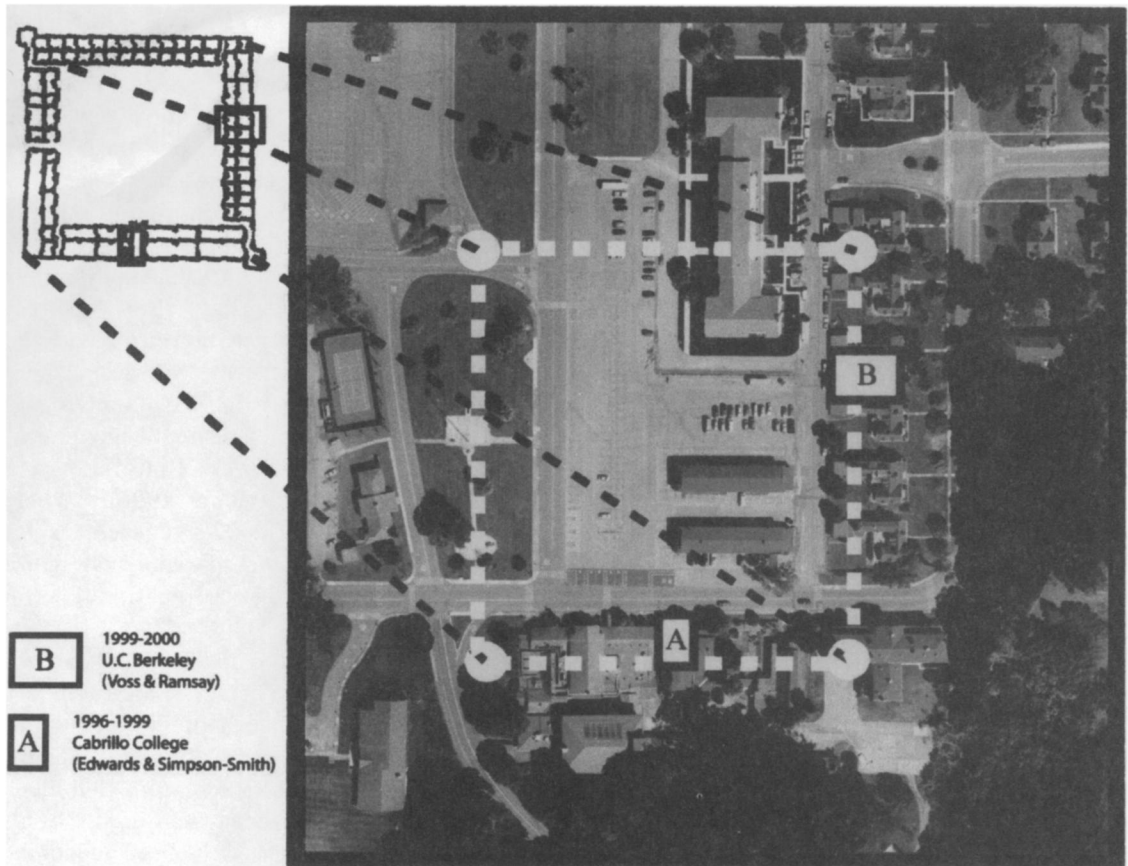


Figure 5. 1795 Plan of San Francisco superimposed on the dimensions of stone foundations first discovered in 1993.

tance against rainwater penetration and, like the foundations, is a technique for the preservation of earthen structures. Hand-hewn lintels provide support over doorways. Partition walls are gabled, to provide load support for the roof, in a style called *tampanco*, developed in response to regions with increased rainfall. This style became iconic to Alta California as opposed to *azotea* or the flat roofed style of the more arid regions of New Spain. This typical *tampanco* style actually experienced a renaissance in the 20th century as part of an architectural style known as Spanish Colonial Revival (Alley et al. 1992).

Remarkably, through continuing occupation and modernization, much of the site retains integrity of deposits and stratigraphy. By circumstance, the U.S. Army continued to use the same layout of the site, resulting in a nearly fossilized landscape amidst change. Residences atop parts of the site, dating from the latter half of the 19th

century, are of post-and-pier construction and served to preserve the site with minimal intrusion. Finally, while modern use of the landscape has, in limited instances, compromised the archaeological integrity of some deposits, in many cases paving projects and modern construction projects have sealed and preserved archaeological deposits. Consequently, many of the deposits encountered in recent investigations can be securely dated to discrete periods and, in some cases, can be linked to specific segments of the settlement's population.

#### Domestic Material Culture and Diet

Since the discovery of archaeological remains in 1993, field investigations at the site have generated a robust collection of artifactual material. By far the most concentrated samples have come from midden contexts, although smaller samples of materials have been recovered from

discrete residential deposits (such as room floors and hearths) and from sheet scatters in various parts of the site. Although not all collected materials have been fully analyzed, sufficient studies have been completed to provide a fairly comprehensive index of material and dietary practices at the settlement. This synthesis draws on field and laboratory investigations conducted at the site between 1993 and 2002 that have been documented in reports, theses, or papers. (Voss 1995, 1999, 2001a, 2001b, 2001c, 2002; Voss and Benté 1995a, 1995b, 1996; Barker 1997; Barker et al. 1997; Carlisle 2000; Simpson-Smith and Edwards 2000; Voss et al. 2000; Hirata 2001; Carlisle and Voss 2002; Ramsay and Voss 2002). Readers interested in the findings of particular studies or in specific types of materials are referred to these studies for more detailed information.

For most of its colonial history, San Francisco was economically isolated. From 1776 to 1810, the vast majority of material goods used by the colonial settlers were delivered to the settlement via supply ships from San Blas. Most foodstuffs were produced at the presidio and at nearby missions, pueblos, and ranchos. Local craft industries also developed in the San Francisco Bay area to supplement these shipments. Some additional goods were acquired through licit or illicit trade with foreign ships that visited the province, but until the 1810s foreign trade was minimal. Unlike most presidios in the Provincias Internas, the settlers at San Francisco do not appear to have obtained substantial amounts of material goods or foodstuffs through trade with local Native Californian populations. Indigenous cultures in northern California were not agriculturalists nor did they produce ceramic vessels prior to colonization. Although Native Californians worked at the presidio as both free laborers and as captives, there is little evidence that the colonists developed substantial trade relationships with indigenous communities.

Household ceramics recovered from midden deposits are diverse in ware, type, and form. During the Spanish period, Mexican-produced lead-glazed red-bodied earthenwares (galeras) comprise the majority of the ceramics recovered at the site. These ceramics include hand-painted monochrome black-line and polychrome slip-decorated bowls and soup plates as well

as undecorated cooking pots. Lead-glazed and unglazed earthenware vessels were also being produced locally and form a significant portion of the ceramic assemblages (Skowronek et al. 2001). Majolica and Bruñida de Tonalá, both of which are low-fired earthenwares produced in Mexico, are also recovered in significant frequencies. Majolica varieties recovered include stylistic types from both the Puebla Blue-on-White tradition (Huejotzingo, San Agustín, San Elizario, and Wavy Rim types) and the Aranama tradition (Monterey, San Diego, and Tucson types). Tumacácori Polychromes and transitional styles such as Huejotzingo Green, Huejotzingo Yellow, and Wavy-Rim Yellow are also present (Voss and Benté 1996; Carlisle 2000; Carlisle and Voss 2002). Chinese export porcelains (including blue-on-white underglaze and polychrome overglaze varieties) are present in small numbers.

Other types of durable material culture are found less frequently. Glass artifacts are rare. Bottle glass consists predominantly of dark green (black glass) British bottle shards, although a few French blue-green "bubbled" bottle shards have also been recovered. Some glass tableware specimens have been identified, a few of which show copper-wheel engraved designs. In comparison with other colonial-era sites in Alta California, glass trade beads are infrequent. Nearly all recovered beads are monochrome, cylindrical, drawn, embroidery-size beads. Ferrous and copper-alloy hardware is commonly recovered from the presidio deposits, usually in fragmented and corroded conditions. Arms, armaments, and ammunition are represented by gun flints, metal gun parts, and lead shot. With the exception of several undecorated copper alloy loop-back buttons, few clothing-related items have been found. Imported *mano* and *metate* fragments, manufactured from nonlocal vesicular basalt, have been recovered in small numbers from some midden deposits at the site. The general paucity of nonceramic durable material culture in the archaeological deposits may indicate that most goods at the settlement were made from cloth, leather, wood, and other organic materials.

As noted above, there is little archaeological evidence of trade with Native Californian groups. There are only two areas at the settlement that have yielded substantial numbers of artifacts

potentially associated with Native Californian traditional practices, and both of these lie outside the walls of the main quadrangle. The first features are in El Polín Springs, a valley just east of the main quadrangle that contained several late colonial residences. Materials recovered there include flaked lithic tools and debitage manufactured from locally available cherts and from bottle glass, fragments of ground stone pestles and mortars, and worked abalone shell, along with the standard complement of colonial material culture described above. The second feature is a trash deposit located immediately north of the main quadrangle, which contains abundant shellfish remains as well as several hand-formed, fired-clay pipes associated with indigenous cultures of the Central Valley, possibly Yokut (after Latta 1999:631). This deposit is still under analysis and may yield considerable information about the native laborers who worked at the presidio.

Studies of foodways at El Presidio de San Francisco have focused on dietary composition. Analyses of bone and shell from several excavation programs at the presidio have provided a rich body of data for analysis of meat-based dietary practices (Wake 1996; Valente 2002).

Zooarchaeological studies of Spanish-colonial/Mexican sites in Alta California have found a general pattern of meat consumption throughout the province. In general, beef was the primary meat source, followed by sheep and goats, then pigs and domesticated fowl (e.g., Deetz 1963; Gust 1982; Greenwood 1989; Draper 1992). Analyses of faunal remains show both similarities and differences from that pattern. Cattle provided the majority of meat eaten. Cattle were butchered in what has been recognized as a typical “Californio” style in which straight-edged knives and cleavers were used to divide the skeleton and free the meat from the bone. Unlike most other colonial settlements in Alta California, sheep, goat, and pig appear to have contributed only minimally to the diet of the presidial residents. Domesticated fowl, especially chicken, are plentiful.

Midden deposits formed during the first decades of the settlement’s history (1776–ca. 1800) also have significant remains of wild species. Deer and rabbit are the most common wild land mammals. Wild carnivores (coyote, wolf, gray fox, grizzly bear, and bobcat) have

also been identified in the faunal assemblages. It seems most likely that these animals were killed for fur or sport rather than for food. Wild birds represented in the assemblages include quail and waterfowl (ducks, geese, and murre). Fish remains consist entirely of near-shore species such as surfperch, pileperch, herring, and lingcod. Sea mammals have only been found in very small numbers and include whale, sea otter, and seal. Despite the abundance of shellfish in the bay and ocean littoral zones near the settlement, shell has not been found in significant quantities. Either shellfish was not a preferred food, or shells were discarded near the point of harvest.

In general, botanical remains are not very well preserved at this site, but recent excavations in a residential area of the quadrangle encountered several hearth deposits that yielded nearly 10,000 preserved seeds as well as other plant parts (Popper 2002). The residential apartment appears to have been occupied between ca. 1815 and ca. 1825. The data show an almost complete reliance on domesticated grains and beans. Wheat comprises 99% of the cereal grains recovered from this context (corn and barley are also present). Legumes are also abundant and include peas and fava beans.

In summary, meat-related dietary practices at El Presidio de San Francisco appear to have differed somewhat from other settlements in Alta California, in that sheep, goat, and pig were eaten infrequently, and wild fish and game were important sources of protein during at least the early years of the settlement’s history. The prominence of wheat contradicts historical accounts that emphasize corn “... as the mainstay of the diet at the Presidio of San Francisco (e.g., Langellier and Rosen 1992: 39–41, 51–52) and could indicate that wheat was more important than previously realized or that corn was being provisioned as corn meal rather than as whole grains.

#### Life on the Edge of Empire

We began this article by discussing geopolitical and economic reasons for the establishment of both the Presidio of San Francisco and Fort Ross. Although, these unquestionably influenced their respective decisions to expand, another

element plays a significant role in maintaining these outposts—frontier pragmatism. Maintaining settlements on the edge of an empire impels frontier leaders toward self-reliance: this is evident through both outposts' individual histories. History also intimates at an emerging symbiosis among neighbors, which at times was subverting government positions. This mutual reliance was dictated by the exigencies of life on the edge of empire.

One of the earliest events often attributed to the settling of Ross by the Russians was the expedition of Nicolai Rezanov in 1806. When Rezanov arrived in Alaska at the colony of Sitka that year, he found the settlement near starvation. He immediately sailed to the Presidio of San Francisco, being the closest port in which to obtain much needed supplies. Although the Spanish permitted no foreign entry into San Francisco Bay and forbade foreign trade, this was an emergency. Through diplomacy, Rezanov was able to obtain food and supplies for the colonists in Sitka and rid his own crew of scurvy. He henceforth recognized the need to establish an agricultural colony along the more temperate California coast to provision the Alaskan colonies, provide a point of embarkation for lucrative fur operations to the south, and to initiate trade relations with San Francisco.

In 1812, after several years of excursions around San Francisco Bay, the Russian American Company claimed lands 60 miles up the coast where the Colony of Ross was established. For slightly more than a quarter of a century, Russians held territory in northern California, a right to which was often disputed by Spain. Relations between the Russian settlement at Fort Ross and the Spanish settlement at San Francisco were considered, overall, to have been quite good. Russians traded frequently with the Spanish and unofficially were given something equivalent to a "most favored nation" status. This is despite the fact that both Russia and Spain claimed the Northwest Coast of North America and had, since the mid 1770s, been nervous about each other.

The story of Fort Ross creates the feeling it was a sprawling semiprotected agricultural and hunting center rather than being a heavily fortified military outpost. No element of force ever actually faced the Russians during their

stay in California. The Spanish and Russian colonies neighbored together without rancor or discord. In 1818, the manager of the Ross Colony received "special instructions on trade with the Spanish." Russians supplied religious ornaments to the Spanish for the new Mission San Francisco Solano, even though that mission had been established largely to check the Russian expansion. Spanish secular items and religious paraphernalia may have also found their way into the Russian settlement. These periodic visits between members of the two cultures for trade and other purposes may be reflected in the various residential, commercial, and interment areas of both colonies. Accurately defining the Russian-Spanish frontier relationship is difficult due to their largely undocumented informal exchanges, which left behind no written records but is a possible avenue for archaeological inquiry.

Although the 1776–1840 period is often referred to and contemplated romantically, life at the presidio was anything but idyllic. Terse, fractious relations with native populations, lack of adequate transportation and communication facilities, primitive educational arrangements, hazards to health with little to combat them, a sparse population scattered over hundreds of miles, inconsistent support and supply from the empire, and limited commercial opportunity synergized to inhibit growth and development (Jones 1979:220).

The combination of hard, unrewarding work compounded by long periods of neglect for this isolated outpost made the population desperate for distractions. Foreign visits, often by Russians, were routinely the requisite cause for celebration. Picnics, folk dances, musical recitals, fandangos, picnics, horse races, and rodeos blossomed at the presidio during these interludes. In addition to these more traditional forms of entertainment, one form of entertainment developed that was not only peculiar to this frontier but was in many respects symbolic of it. In times of celebration, *vaqueros* were dispatched south to retrieve the largest bull from the Rancho del Rey, while others were dispatched into the northern hinterlands to lasso the largest grizzly bear they could find. To mixed reviews, visitors would be entertained on the presidio beach with a gruesome death match between the bull and the bear.

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- ERIC BRANDAN BLIND  
PRESIDIO ARCHAEOLOGY LAB  
PRESIDIO TRUST  
PO BOX 29052  
SAN FRANCISCO CA 94129-0052
- BARBARA L. VOSS  
DEPARTMENT OF CULTURAL AND SOCIAL  
ANTHROPOLOGY  
STANFORD UNIVERSITY  
BUILDING 110, ROOM 112-T  
STANFORD, CA 94305-2145
- SANNIE KENTON OSBORN  
PRESIDIO ARCHAEOLOGY LAB  
PRESIDIO TRUST  
PO BOX 29052  
SAN FRANCISCO CA 94129-0052
- LEO R. BARKER  
NATIONAL PARK SERVICE  
GOLDEN GATE NATIONAL RECREATION AREA  
FORT MASON BUILDING 201  
SAN FRANCISCO CA 94123