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Rethinking Mission Land Use and the Archaeological Record in California: An Example from Santa Clara

ABSTRACT

Previous archaeology at California's missions has primarily focused on structures and the areas immediately adjacent to structures. Study of the documentary record tends to concentrate on annual reports (*informes*) and communication between mission fathers, with some attention paid to buildings and structures shown on historic maps. Recent construction activities on the Santa Clara University campus have triggered archaeological planning and research, and have shown the importance of open-area excavation for understanding land use between and among structures of Mission Santa Clara, as well as in more outlying areas. Focus on areas between buildings increases the likelihood of finding more ephemeral living and usage areas. Complementary study of historic drawings and descriptions also demonstrates that Native Americans used lands between and surrounding structures for living, agricultural, and food-processing areas.

Introduction

Exploration, construction, and expansion typifies the Spanish (1769–1821) and Mexican (1821–1848) periods in Alta California, that is, the northern part of California that now belongs to the United States (Figure 1). This era saw the founding of 21 mission sites overseen by Franciscans, and the Spanish and later Mexican governments. Many of these missions were constructed in several locations, as each went through a period of trial and error. The purpose of the missions was to solidify Spain's (and later Mexico's) political foothold in Alta California, as well as to transform the native population—called *neophytes* once they entered the mission system—into a “Spanish-speaking, revenue-generation population” (Barker et al. 1995:5). Spain and Mexico also maintained a military presence at several *presidios* (Voss 2008), and established several civil settlements at Los Angeles, Branciforte (Santa Cruz), and San José de Guadalupe.

Archaeological and documentary evidence has offered insights on life in Spanish and Mexican colonial Alta California (Barker et al. 1995; Hackel 2005; Lightfoot 2005; Lightfoot et al. 2005). Most of this work has focused on the structures that make up the central buildings of the mission—the church and associated quadrangle. Fewer studies have looked at structures and their associated archaeological components that represent living, agricultural, and industrial areas.

More than 15 years ago, David Hurst Thomas (1991:145–146) encouraged archaeologists to look beyond the main church and quadrangle. He also predicted that it would be studies undertaken as a result of cultural resource legislation that would test the boundaries of previous California mission-era archaeology:

Many of California's missions exist today in urban settings, and historical archaeology has demonstrated time and time again that associational and architectural integrity may be present beneath streets, buildings, parking lots, and gardens. Although the church/mission quadrangle has often been heavily worked over, there is every reason to be optimistic that this new brand of off-site archaeology will divulge new insights into mission life, particularly hard-to-come-by data on economic, industrial, biocultural, and other ancillary activities. The preservation of this potential testifies to the importance of Cultural Resource Management legislation requiring compliance with current environmental regulations.

Recent excavations at Mission Santa Clara have demonstrated Thomas's prescient statement. Prompted by the legal requirements of the California Environmental Quality Act (CEQA), archaeological investigation has recovered data on mission-era Native American living and food-processing areas, found well outside the Mission Santa Clara church and quadrangle areas.

Previous Archaeology at California Mission Sites

Barker et al. (1995:14–17) discuss architectural, engineering, and archaeological studies that were carried out in Alta California from the 1920s to the early 1990s. Some of the earliest studies focused on evidence of vegetation in adobe bricks

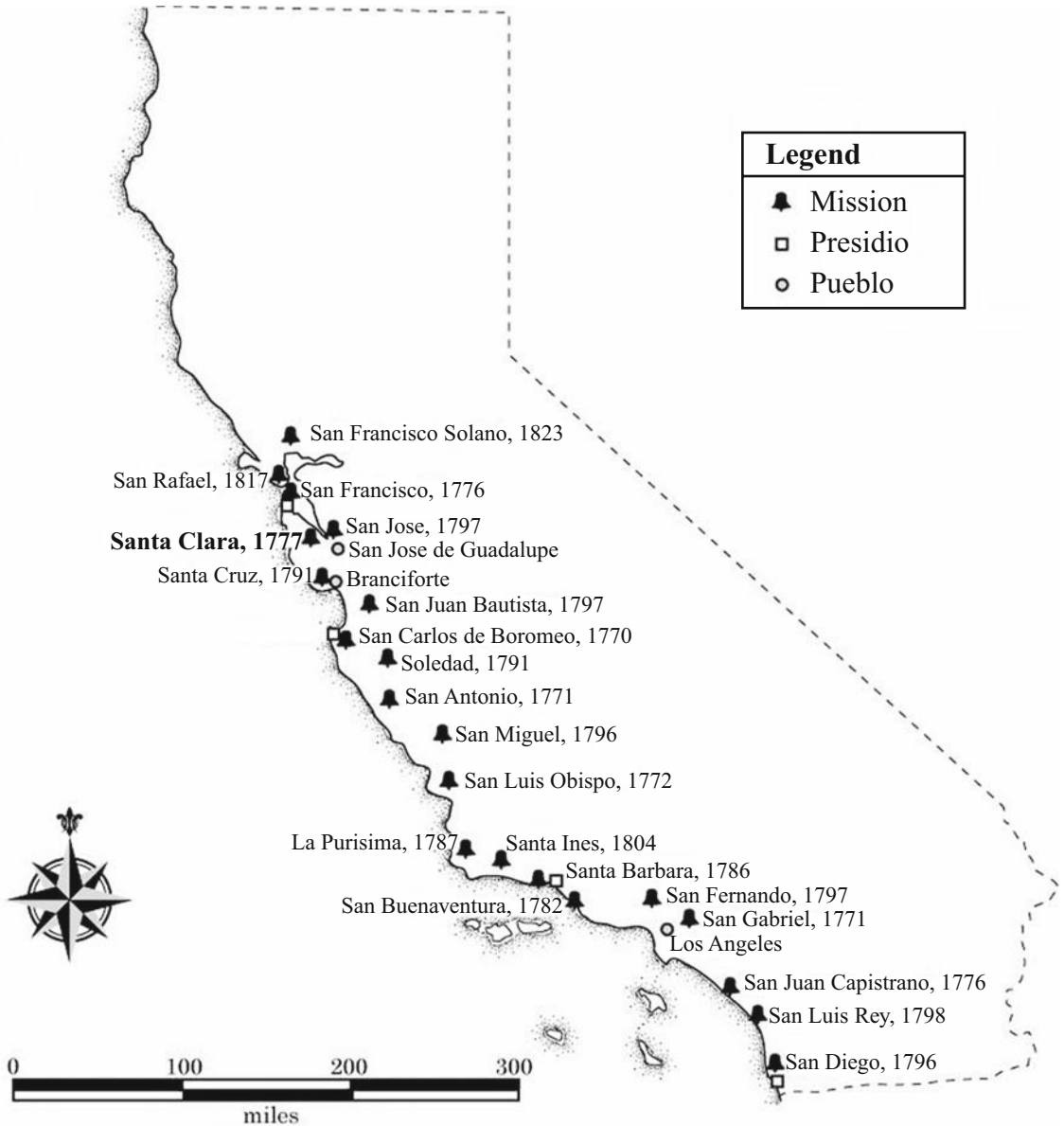


FIGURE 1. Missions, pueblos, and presidios founded during the Spanish and Mexican periods in Alta California, 1769–1834, highlighting Mission Santa Clara. (Drawing by Stella D’Oro, 2008.)

(Hendry and Kelly 1925; Hendry 1931). Numerous articles have since been written on the material artifacts of everyday life, including beads, buttons, ceramics, faunal material, and Native American lithics and groundstone, many summarized in Barker et al. (1995:19–20). Most of the archaeological reporting has been on buildings within the mission quadrangle, that is, the mission church and the adjacent (generally square) arrangement

of rooms for mission priests’ (padres’) living quarters and eating area, workshops, and the convent (also called the *monjerio*, where young unmarried women lived in dormitory style). There are some studies of structures outside the quadrangle, such as soldiers’ quarters and neophyte residences, but these are fewer in number.

Table 1 summarizes archaeological and relevant historical studies of buildings and structures

TABLE 1

MISSION ARCHAEOLOGICAL STUDIES IN CALIFORNIA, PRIMARILY FOCUSED ON BUILDINGS AND STRUCTURES

Mission	Topic(s) of Archaeological Study	Reference(s)
Nuestra Señora de La Soledad	Padres' quarters, neophyte residence areas, aqueduct	Farnsworth 1987, 1992
La Purísima Concepción	Archaeological and historical studies, mostly tied to reconstruction efforts. Investigation of 18 buildings and features: church, padres' residence, workshops, water system, neophyte residences, blacksmith shop, warehouse, tallow and soap works, cemetery	Whitehead 1980
	Neophyte quarters	Gabel 1952; Deetz 1963
	Cemetery	Humphrey 1965
	Warehouse and granary	Farris 1997
	Study of original site—La Purísima Vieja	Costello 1993, 1994b
	Possible fulling mill	Hoover 2001
San Antonio de Padua	Aqueduct system	Smith 1932
	Neophyte quarters	Hoover and Costello 1985; Hoover 2002
	Soldiers' quarters, house of mission vineyardist, mission workshops	Bertrando 1997; ongoing work: field school California Polytechnic University, San Luis Obispo
	Aqueduct system	Jones et al. 1997
	Geophysical survey and summary of structures	Hoover et al. 2004; Hoover and Hoover 2008
San Buenaventura	Aqueduct system	Greenwood and Gessler 1968; Foster and Greenwood 1989
	Archaeological study of mission layout and history	Greenwood 1975, 1976
San Carlos Borromeo	Architectural history, assessment of ruins	Smith 1921; Broadbent 1955
San Diego de Alcalá	Dam and irrigation	Green 1933
	Multiple-year archaeological program, focusing on structures	Brandes et al. 1987
San Fernando	Granary, cooking hearth, "midden"	Abdo-Hintzman 2008
San Francisco Solano (Sonoma)	Study for restoration work	Bennyhoff and Elsasser 1954; Treganza 1956
San José	Residence areas	Dietz et al. 1983
	Neophyte quarters	Thompson et al. 2003

TABLE 1 (CONTINUED)

MISSION ARCHAEOLOGICAL STUDIES IN CALIFORNIA, PRIMARILY FOCUSED
ON BUILDINGS AND STRUCTURES

Mission	Topic(s) of Archaeological Study	Reference(s)
San Juan Bautista	Neophyte quarters	Clemmer 1961; Farris 1991
	Quadrangle, mission well	Field school, California State University, Monterey Bay, Mendoza 2002
	Faunal study, comparative assemblage from courtyard and neophyte quarters	St. Clair 2005
	Soldiers' quarters	Cannon 2005
San Juan Capistrano	Archaeological and historical studies	Magalousis 1989
	Restoration work, including archaeological studies	Summarized in Schafer and Loomis 2005
San Luis Rey	<i>Lavendarias</i> (laundry), aqueducts, orchards, kiln, soldiers' quarters	Soto 1961
	Sunken gardens	Cohen-Williams 2005
	Neophyte quarters	Williams and Williams 2007
San Miguel	Archaeological work during seismic retrofit of church	Greenwood 2009; Hoover 2009
Santa Barbara	Water storage and aqueduct system	Imwalle 1996; Allen and Felton 1998
	Mausoleum	Costello 1990
	National Historic Landmark study; overview of known architectural and archaeological features	Allen et al. 2000
	Neophyte village	Williams 2005
Santa Clara de Asís—see additional references in text	Third mission site	Lynch 1981; Huelsbeck 1985; Hylkema 1995
	Fourth, fifth mission church, cemetery	Skowronek and Wizorek 1997
	Butchering area (<i>matanza</i>)	Burson 1999
	Neophyte living areas, butchering area	Hylkema and Skowronek 2000; Garlinghouse 2007; Allen and Blount 2009; Allen et al. 2009; Hylkema and Allen 2009
Santa Cruz	Neophyte quarters	Felton 1987; Allen 1998; Allen et al. 2003
	Tanning vat	Dietz 1986
Santa Inés	Padres' quarters	Costello 1989
	Neophyte village associated with mission	Wilcoxon et al. 1989a, 1989b
	Tanning vat	Wilcoxon et al. 1992
	Threshing floor	Tremaine 1992
	Fulling mill	Hoover 1992
	National Historic Landmark study; overview of known architectural and archaeological features	Costello et al. 1997
	Possible soldiers' quarters	Hoover 2002

undertaken at each mission, listed alphabetically. Note that there have also been historic structure reports at many of California's missions that are not detailed here. Full consideration of all these excavations could easily prompt an article to update the discussion of the status of mission-period archaeology in California (Barker et al. 1995:15–17), which is not the intent of the current article. Citations in Table 1 are presented as background, and the text below considers only some of the implications of these many excavations.

Consideration of the Documentary Record

The documentary record of California's mission history is equally as rich. Original sources of information come from the mission fathers, military personnel, and foreign visitors. At each mission, the fathers compiled annual *informes* (reports) that detail each mission's baptisms, marriages, deaths, livestock counts, agricultural plantings and harvestings, building construction and repairs, and mission furnishings. The College of San Fernando in Mexico also required missionaries to produce biennial population reports. Typically, mission baptismal, marriage, and death registers are also extant with confirmation records up until about 1810 (and after 1833). Most of the mission fathers corresponded with their superiors, military personnel, and each other; the record of priests' letters is nearly overwhelming. Several libraries and repositories house these documents, including primarily the Santa Barbara Mission Archive-Library, the San Francisco Archdiocese Chancery Archive, and the Bancroft Library at the University of California, Berkeley. One of the most-cited pieces of documentary evidence is a questionnaire sent to all missionaries in 1812, and answered between 1813 and 1815. The priests responded to the inquiry about the natives of California and their progress within the mission system; fathers answered questions on native education, Spanish-speaking abilities, feelings regarding the fathers and military, virtues and vices, religion, social status, marriages, curing techniques, food sources, burial customs, and general conditions within the mission (Geiger and Meighan 1976).

Many foreign visitors and explorers visited California during the Spanish and Mexican periods. Especially interesting is a journal from a 1792 visit to California by two small ships

searching for the Northwest Passage. The author of the journal is unknown, but is suspected to be José Cardero, a scribe and artist (Cutter 1990). Many foreign travelers, mostly associated with trading vessels, also passed through parts of California. Egenhoff (1952) provides original text and translations of these visitor accounts, as well as as many of the illustrations that various artists have left behind. Costello (1991) also presents the history of many of these traders and explorers, and their associated documents.

After the Mexican War of Independence in 1822, the secularization (turning over to civil authorities) of mission lands began, and large ranches were carved out of their expanses. Costello (1994a) gives the example of Mission San Antonio, and the kinds of documentary records of these land transactions that exist that can help reconstruct mission land use. During the American period (post-1848), the U.S. Land Commission began hearings in 1852 with the intent of segregating private land from public domain; as part of a U.S. District Court case maps were commissioned in order to settle mission land expanses and rights to that land. In 1854, John G. Cleal and George Black surveyed many of California's missions, and produced maps that provide much information about the layout of the missions. As a result, these maps focus on the main church and quadrangle, but show some areas of orchards, gardens, and vineyards, all of which was land in dispute. Several other post-1850 maps and photographs exist for each mission, and can be found in repositories and libraries throughout California, as well as on the Internet.

A small body of literature from the Native Americans whose lands were colonized adds nuance and depth to the records written by and for Europeans, government agents, and religious officials. Pablo Tac (1822–1841) was a Luiseño, born in Mission San Luis Rey, and the author of an account of California natives and their languages (Hewes and Hewes 1958; Kottman 2008). Only a few other documentary sources, in the form of oral histories, have been left behind by the native occupants of the missions. Lorenzo Asisara was born toward the end of the mission period (he was baptized in 1819), but offers recollections about life at Mission Santa Cruz from his own experience and that of his father (Mora-Torres 2005). Julio César was also born in

Mission San Luis Rey (around 1824), and was interviewed as part of the Bancroft history program. John P. Harrington interviewed Fernando Librado, a Chumash native, sometime around 1912–1915. Lightfoot (2005:91–96) discusses these texts and their implications for understanding the native experience within the mission system; he also discusses the importance of the ethnohistorical record to interpretation.

All of these sources can be mined for information about the layout, buildings, and structures of California's missions. Maps and photographs are perhaps the most useful, although many details can be surmised about mission land use from the other sources. Colonial and native attitudes towards the landscape and its uses can also be inferred. Barbara Voss (2000), for example, derives through study of the documentary and archaeological records some of the Native American attitudes towards the use of structured space within the mission system.

Documentary and Archaeological History at Mission Santa Clara

Many documentary lines of evidence that provide details of Mission Santa Clara history exist. Mission Santa Clara was founded on 18 January 1777, the eighth Franciscan mission in Alta California. It was secularized in 1836. Annual reports and priests' letters, many of which were recently translated and published, exist in the Santa Clara University campus archives (Skowronek et al. 2006). Like many missions, Santa Clara went through trial-and-error phases of construction, although it is somewhat unique in that the mission church was built in five different locations during the mission period (Skowronek and Wizorek 1997). Remnants of the third church and quadrangle, the fourth church, and the fifth church and quadrangle are found within the boundaries of the modern Santa Clara University campus. Several historic maps, although created long after the mission period, are particularly important for understanding the evolution of the mission complex.

In 1854, George Black produced a map of buildings that depicted the third and fifth iterations of the Mission Santa Clara complex (Figure 2). Drawings also provide evidence for structures and a general sense of the building layout and surrounding landscape. G. M. Waseurtz af San-

dels (1945), a Swedish traveler in California, sketched the fifth mission church of Santa Clara in 1842 (Figure 3). The drawing also shows the structure of the fourth church in the left foreground, portions of the third church complex in the lower right foreground, and rows of adobe residences for the Indian neophytes along the right edge. Historic photographs, mostly found at Santa Clara University, Santa Clara City Library, and San Jose Public Library show the evolution of the university campus and remnants of older buildings (Figure 4). Father Spearman (1958, 1963) used these and other sources to plot the mission-era features found within the boundaries of the university, including the third, fourth, and fifth church locations, as well as several agricultural features including a vineyard, orchard, cemeteries, *zanjas* (irrigation ditches), a swamp, and small pond area. More recently, Hylkema (1995:map 10) interpreted and updated this map, which proved invaluable for recording and locating recent and past archaeological finds on campus.

Construction activities have been the primary driver behind archaeological investigations at Santa Clara. Archaeological evidence came from inadvertent finds during utility replacement and installation, excavation prior to the rerouting of one of the main roads, and monitoring during construction of new buildings on campus. Excavations for a sewer line (1907), basements (1907), gas main (1911), water-pipe trench (1920), and additional gas mains (1924, 1928) found burials, third mission walls, and finds of beads, bones, and shell. In 1934, Father Spearman conducted excavations at the third mission site, and encountered a 36 in. wide adobe wall and scattered foundation stones. A water main laid in the 1960s encountered more burials. Mark Lynch (1981:12–14), Santa Clara University's first campus archaeologist, summarized these finds.

In 1981, the California Department of Transportation investigated the third mission site (designated CA-SCL-30) as part of an impact zone identified during the proposed realignment of Route 82 (also known as El Camino Real in this area). Mayfield et al. (1981) detailed the archaeological testing and excavation in the area of the third mission church, and noted the integrity of mission-era deposits found. Discoveries include foundation stones, adobe brick, roof tiles, floor tiles, ceramics, glass, and human bone.

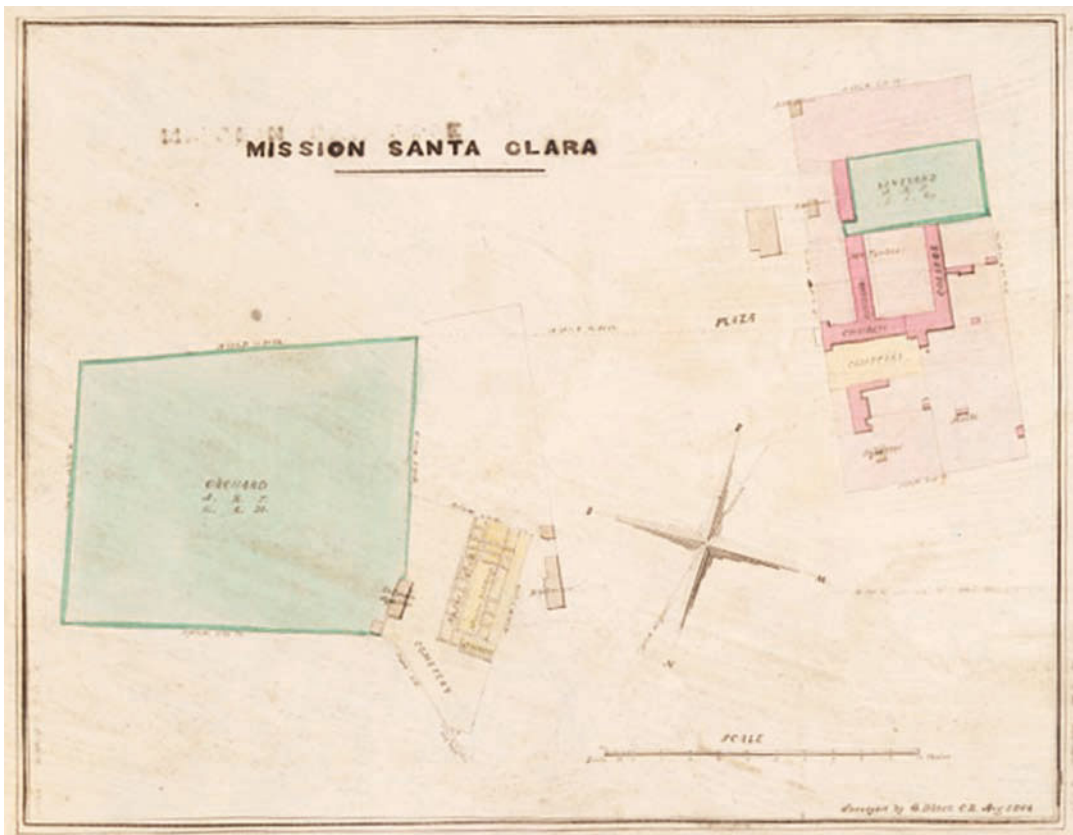


FIGURE 2. Mission Santa Clara, surveyed by George Black, C.E., August 1854. (Courtesy of the Bancroft Library, University of California, Berkeley, Landcase Maps Collection, Land Case Map D916R:17.)



FIGURE 3. Drawing by G. M. Waseurtz at Sandels of the fifth church at Santa Clara. Note the rows of neophyte adobe houses at the right edge. (Courtesy of Santa Clara University Archives and Special Collections.)



FIGURE 4. Students near Old Adobe Wall, part of the fifth mission complex, 14 May 1911. (Photograph Courtesy of Santa Clara University Archives and Special Collections, Turrill-Miller Photograph Collection.)

In 1982, Mark Lynch conducted further excavations at the third mission site (Hylkema 1995:44), and also investigated a portion of a wall associated with the quadrangle of the fifth mission church during renovations of the Faculty Club (Jenkins et al. 1998). In 1985 to 1987, under the direction of David Huelsbeck (then campus archaeologist and a Santa Clara University professor), additional excavations occurred at the third mission site. Huelsbeck (1985, 1988) verified the location and orientation of the quadrangle, although some of his assumptions were slightly off (Hylkema 1995:44). Huelsbeck also identified tanning vats, a portion of the *zanja* (ditch), and the location of the orchard-keeper's house. In 1987, in response to demolition proposed for several residential structures, he monitored the buildings' destruction and associated excavations, noting adobe blocks, foundation walls, adobe borrow pits, and mission-era trash pits, as well as later American-period finds.

Trenching for electrical conduits during the construction of the new El Camino Real route in 1988 encountered a tile-floor feature, as well as shell beads and cobbles (Hylkema 1995:51–54). In that same year an archaeological preserve was created at the site of the third mission, with the intent to prevent further disturbance of archaeological components. The boundaries of that preserve, CA-SCL-30/H, have not been fully determined, and intermittent disturbances

still impact the archaeological record in the area. In 1989, construction activities related to a new entrance road into Santa Clara University included trenching for electrical and water lines. Archaeological monitoring during trenching noted that while the new entrance road was mostly constructed on fill near the third mission quadrangle, a trash pit and foundation stones were disturbed (Huelsbeck 1989; Hylkema 1995:56). After roadwork completion, the City of Santa Clara used imbedded pavers to mark the outline of the third mission church and portions of the complex (Figure 5). Unfortunately, the markers are slightly off in their interpretation (Hylkema 1995:100), and the university later added a wall that many mistake for a boundary of the archaeological preserve, although the site extends well beyond the wall's confines.



FIGURE 5. Paver outline of the third mission church, in the area of the archaeological preserve. (Photo by author, 2007.)

Russell Skowronek provided the impetus to create the Santa Clara Archaeology Research Lab in 1994, with the stated goals of providing on-campus archaeologists to supply cultural resource management expertise, establish a repository for materials, and to provide students with research opportunities (Hylkema and Skowronek 2000:2). A campuswide lighting and trenching program in 1995 prompted more archaeological monitoring (Skowronek and Wizorek 1997:74–75; Wizorek 1998). Campus archaeologists noted two parallel cobblestone foundations of the fourth mission

church and associated mission-era artifacts, portions of the cemetery associated with the fifth mission church, floor tiles believed to be associated with the *mayordomo* (overseer's) residence, and foundations of other mission-period buildings, as well as adobe buildings from the immediate post-mission period. Additional monitoring during upgrades to utility lines and landscaping efforts in 1996, 1997, 2000, and 2001 found portions of the third mission, including the orchard wall, and remnants of roof tile, ceramics, and other mission-period artifacts. Archaeological reports and finds are summarized in Skowronek and Wizorek (1997) and in Allen et al. (2004:84–85).

The impending construction of a new communications, public policy, and applied ethics building prompted campus archaeologists to write a short treatment plan (Wizorek and Skowronek 1997). In 1998, during construction of a new parking structure, archaeological monitoring encountered an area of 24 × 52 m containing at least 1,625 animal carcasses. Burson (1999) identified this area as a *matanza*, a large area of animal slaughtering and butchering. Repair of a swimming pool in 2000 prompted the discovery of what was interpreted as a “large borrow pit for soil to make adobe blocks and secondarily filled with kitchen refuse from the nearby neophyte quarters” (Hylkema and Skowronek 2000:3). These last examples of archaeology on campus began to raise further questions about mission land use areas, and the need for a more programmatic approach to archaeological resources.

Campus-Wide Research Plan

During preparation of a 10-year capital plan (Santa Clara University 2003) for new and renovated buildings on the 106-acre area that makes up the campus, the university initiated a proactive research design and treatment plan for the avoidance and data recovery of archaeological resources prior to demolition of existing structures and construction of new facilities (Allen et al. 2004; Allen et al. 2009). The Archaeology Research Lab at Santa Clara, Albion Environmental, Inc., and Past Forward, Inc. teamed together to research the history and archaeology of the entire campus and surrounding areas, summarize previous archaeological investigations, and promote an active archaeological program that stressed avoidance whenever possible. In areas

where avoidance was not possible, rather than simply monitoring, the treatment plan emphasized a program of data recovery and research that would occur well before demolition and construction activities. The treatment plan also recognized that historical land use is often quite site specific, and historical and archaeological information will improve over time. To remedy this, it was recommended that specific treatment plans and field excavation guidelines be written for each new construction project that requires ground disturbance, and that these shorter documents be appended to the original document.

Since 2004, archaeological investigations have occurred in areas designated for a new business school, library facilities, multiuse facility, residence for Jesuit professors and staff, green-building student commons, and the expansion of some existing structures such as parking lots. Construction plans for a new athletic facility, re-installation and upgrades of major utility lines, and re-alignment of existing roadways are on the horizon. To date, excavations that have occurred have encountered deposits associated with the mission era (1777–1836), Mexican period (1836–1848), American period (1848–1930s), and the Native American, colonial, and European American settlers of the area. Reporting is still underway; this article addresses only mission-era finds.

The research design and treatment plan prescribed archaeological methodologies that in addition to testing emphasize open-area excavation to the extent possible, coupled with stratigraphic recordation methods. Barker (1977:15) noted the re-emergence of excavation techniques that emphasized horizontal exposure. He also made a strong argument for excavating whole features (and sites where possible), rather than sampling (Barker 1977:54). Harris (1989:25) noted that while open-area excavation methods developed during the 1960s, this excavation did not always include recordation and analysis of the stratigraphy exposed by the excavation, and his creation and explanation of the Harris Matrix went a long way towards closing that informational gap. Lightfoot (1995:209) encouraged researchers to consider excavation methods and the complementary information provided by vertical and horizontal area excavation. Careful excavation of stratigraphic layers has been used with success at some California missions (Felton 1987; Costello 1989). Its use is not yet pervasive though, and for

that matter, neither is the practice of open-area excavation. Both methodologies are critical to achieving Thomas's (1991:145–146) vision of realizing the potential for archaeology beneath the urban settings that currently surround most of California's missions. The Santa Clara treatment plan (Allen et al. 2004) stressed that while testing and trenching may provide presence-and-absence information as well as chronological placement of resources, only through open areas of excavation could historic land uses be fully understood.

Recent Archaeological Finds— Between Known Mission Buildings

At Mission Santa Clara, previous investigations demonstrated that despite its urban setting and 19th- and 20th-century land uses, much of the archaeological record remains intact beneath parking lots, streets, landscaped areas, and structures. Unlike many earlier projects, most of the new proposed construction has occurred in areas between known buildings and structures noted on maps and shown in drawings and photographs. Based on previous findings, the overall treatment plan (and later supplements) predicted the archaeological presence of refuse pit features, sheet refuse (broad scatters of artifacts), building foundations, tiled floors, orchard walls, and possibly more ephemeral features such as gardens, post-holes, drainage systems, and orchards. Research themes highlighted missionization, culture contact, cultural adaptation, and environmental changes.

Santa Clara University slated the location of a parking lot west of the third mission church site for the construction of a new school of business. Before it had become a parking lot in 1994, this area was densely occupied by residences and businesses during the late 19th and most of the 20th century. Review of Sanborn insurance maps illustrated the intensity of American-period alterations to the block. An aerial view from 1975 showed that a commercial presence dominated the northern half of the block until Santa Clara University purchased the properties. The university demolished several of the residences in the late 1980s. During monitoring of house demolition, Huelsbeck (1987:3) noted two trash pits that he thought were mission period exposed in the cellar of one house. A decade later, monitoring during the demolition of a corner bar (Lord John's Inn), a large mission-period "adobe mixing

pit" (an area that was mined for soil and used to mix it with straw to make adobe blocks) was discovered in a section of the sidewalk. Fragments of *tejas* (roof tiles), *ladrillos* (floor tiles), and faunal remains of butchered animals filled the feature (Ginn et al. 2002). In 1996, a construction project extended walkways and landscaping, and included pavement removal and utility-line (water, sewer, electrical) excavation. Archaeological monitoring noted a deposit of poorly fired *tejas* and tile wasters. Archaeologists (Wizorek and Skowronek 1996:2) surmised that this deposit was part of a mission-period attempt to level the naturally sloping roadway. Also in 1996, utility trenching in a nearby street encountered a cobble feature west of the former location of the third mission. During 2001, archaeological monitoring for subsurface utility-related activities in the same area found many fragments of *tejas* (Bryne 2001).

Still, much of the mission-era archaeological record survived, although archaeologists were only seeing glimpses of the block's potential. Given these archaeological findings, and to assess the potential for remaining archaeological deposits in the block proposed for the new school of business building, Linda Hylkema, assistant campus archaeologist, and Albion Environmental, Inc. conducted an extensive trenching program (Peterson et al. 2002). This testing showed the presence of an abundance of mission-period artifacts and "features."

Past Forward, Inc. and Albion Environmental, Inc. undertook three extended sessions of fieldwork to excavate areas within this same block. Fieldwork sessions were staggered in order to accommodate university parking needs, but occurred well before demolition and construction activities began, and only after the campus-wide treatment plan and research design had been written and approved by the university and the City of Santa Clara. The primary and most substantial excavation occurred in August 2004; later excavations occurred in May 2006 and April 2007. Archaeologists directed the exploration of the area using mechanical equipment (a backhoe outfitted with a flat blade) to remove the overburden and expose as much of the area as possible. By creating large-area exposures, archaeologists were able to see that an overburden covered the site features. During the late American period, much fill had been brought into the project area,

likely in an attempt to “even out” the mission-period topography, which would have been a more undulating terrain. This fill was probably brought from nearby areas on campus, and contained not only soil, but a mix of artifacts (out of their original context) from the mission and American periods. This history of fill showed one of the problems which would have been created by excavation of narrow trenches only.

The 2001 testing program (Peterson et al. 2002) was intended to demonstrate the presence/absence of intact archaeological deposits; this was an important step, because given the number of previous excavations and historic disturbance, university officials were skeptical of the possibility of finding more archaeological remains. Only narrow trenches were excavated, masking the extent and content of the refuse layer that was filled with mission-period refuse, but brought in from elsewhere and not in its primary context.

In several instances, archaeological monitors believed they were seeing features when in fact they were seeing segments of this introduced fill. This is not a criticism of this presence/absence exercise: its intent was to confirm the presence of a rich archaeological deposit in the area so that additional excavation efforts could be justified and approved. Rather, the current excavations and open-area excavation refined archaeological understanding of what the narrow trenching had encountered. Prescribed open-area excavation allowed for a much more comprehensive view of site stratigraphy and composition over horizontal expanses, as well as an understanding of vertical alterations and site layers. The purpose of the open-area excavation was to expose living surfaces and other more ephemeral elements of the historic landscape. This method resulted in the finding, identification, and interpretation of an archaeologically documented native-style residence that dates to the mission period in California, as well as other important features related to neophyte living areas.

Discovering Neophyte Living and Use Areas

Mission Santa Clara’s historic records, especially marriage and death records, give evidence that several groups were brought into the mission system. Baptisms began at Mission Santa Clara in the year of its founding. In 1777, 69 baptisms of local Ohlone occurred (Milliken 2002:49). Not

all of the newly “converted” neophytes lived at the mission—records noted the mission’s native population as 13. The first native converts were Ohlone from nearby villages.

As with many colonized peoples in the New World, California Native Americans were particularly susceptible to diseases that the colonizers brought with them. Mayfield et al. (1981:30–33) undertook a study of the death records at Mission Santa Clara. In part, this was done to determine which cultural groups were represented in the cemetery associated with the third mission church complex. The authors noted that the majority of neophytes buried within the cemetery were Ohlone; in 1785, Ohlone deaths represented 94.4% of the buried population. Neophytes brought from other missions and a few non-native colonial individuals represent the remainder of the recorded deaths. Death from disease became commonplace, and periodic epidemics, such as one in 1802, further devastated the native population. As Milliken (2002:54) notes, by the end of the 18th century, “all autonomous native villages from the ocean shore to the eastside of the Santa Clara Valley were empty.”

Within the mission, neophyte numbers reached more than 1,400 by 1806. Mission Santa Clara was only able to sustain and grow the native population, and thus the labor force, through a constant influx of new converts. After 1811, native groups east of Santa Clara, the majority of which spoke the Yokuts language, were brought into the mission to replace the dwindling numbers of Ohlone (Milliken 2002:57–60). By 1815, the cultural affiliations of individuals buried in the cemetery had markedly changed (Mayfield et al. 1981:30). Cultural affiliation was noted as 38.4% Ohlone, 26.5% Santa Clara Mission Indians (meaning those born at the mission), 22.2% Yokuts, 6% Miwok, 1.7% nonnative colonials, and 1.7% with no affiliation listed. During the next several decades, more than 1,800 Yokuts were incorporated into this mission system. After 1829 and a tribal revolt against the soldiers, fewer Yokuts were baptized, although the baptisms continued to the end of the mission period. Miwok were also brought into the mission, although in smaller numbers. Baptism of new Miwok converts continued until secularization; in 1835, 60 Miwok were baptized at Mission Santa Clara (Milliken 2002:57–60).

Native American response to this program

of indoctrination was varied. Milliken (1995) describes the imbalance of power once colonization began, and the policies that restricted neophyte actions and reactions. For example, mission fathers determined where neophyte populations lived, and directed construction of adobe buildings for use as native housing. Allen (1998:91) notes that despite limitations, some native patterns continued within the mission system, including construction of native-style houses. Construction of shelter was a necessity—native converts had to live somewhere and there were never enough adobe houses for everyone. Neophytes' tribal affiliations and thousands of years of cultural habit determined the styles of the houses, especially for the newly converted. Recent excavations uncovered evidence of these two kinds of housing for this neophyte population: connected rooms of adobe on a stone foundation, and a native-style housepit.

Documentary and Ethnographic Evidence for Housing

In 1777, when the Franciscan Fathers founded Mission Santa Clara, they noted nearby Ohlone villages, as well as their houses. Father Peña specifically noted more than 40 "*rancherías*" within a five-league distance. Spearman (1963:15) recounts that the fathers noted "willow and grass huts." According to a number of ethnographic sources, summarized by Allen (1998:23), and also Levy (1978) and Heizer and Elsasser (1980), the common Ohlone winter houses had a conical base structure. Tule matting or brush covered a framework of bent willow poles. Houses typically provided a residence for 6 to 20 people. Spring and summer dwellings were more informal, and often smaller. The Ohlone moved frequently during seasonal rounds; they abandoned and often burned their residences as they left them. This cycle of abandonment helped to control animal and insect infestation, as well as refuse.

Under the supervision of the Franciscan fathers, Indian neophytes constructed all of the buildings within a mission complex. Building programs at all mission sites began with the church, and then expanded to the structures surrounding the church, known as the mission quadrangle. The latter structures included quarters for the priests. Neophytes lived in the vicinity of these buildings, in their native-style houses. As the annual

report for 1779 notes, "There are 11 families of married neophytes that live in the Missions in their tule houses" (Skowronek et al. 2006:49). By 1786, the annual report noted: "There are in the Mission 61 families of married neophytes who live in a village of straw houses and they go to church mornings and afternoons to pray the Christian doctrine together with the bachelors, and all together there are 557" (Skowronek et al. 2006:125). The following year, the father reported: "There remain 70 families of married neophytes, 507 individuals of both sexes and all ages, which add up to 647 persons who live communally in a village of straw huts" (Skowronek et al. 2006:133). The annual report for 1789 notes that "There are 84 families of married neophytes who live in the town made of straw huts, supporting themselves communally from the grain of their crops" (Skowronek et al. 2006:141).

Some adobe housing for neophyte families were eventually built at all missions. At Mission Santa Clara, the first neophyte adobe houses were built in 1792, some 15 years after the founding of the mission. Until that time, neophytes would have lived in their native-style houses. In 1792, during the construction phase of the third mission church and quadrangle complex, eight houses were built. Remarkably, one of these neophyte adobe houses still exists, and is owned by the Santa Clara Woman's Club (Figure 6). It is registered as California Historical Landmark No. 249, and dates to approximately 1792–1800 (Office of Historic Preservation 2008). Although none of these structures appears on historic mission maps, they appear in Sandel's drawing at the right edge. As he depicts (Figure 3), there were several rows of residences in this area. The 1792 annual report noted that they were "8 varas long and 5 varas wide, each one as a home for the Indians" (Skowronek et al. 2006:160). A *vara* is generally ascribed to be approximately 32.755 in. (Spearman 1963:n5,116), ostensibly making each room about 21.8 ft. long and 13.6 ft. wide. The Native American population numbered 1,001 individuals in 1792, certainly too many to house all in the new adobe structures.

During a voyage in the north Pacific, Captain George Vancouver visited Mission Santa Clara in 1792. The naturalist on the voyage (as dictated by one of the officers) noted the living conditions of the neophytes:



FIGURE 6. “Oldest Adobe House in Santa Clara, built by Mission Indians.” Colorized postcard made from photograph taken by Alice Hare, ca. 1904. (Courtesy of the Santa Clara City Library.)

They saw a crowded [sic] Indian Village close to the Mission, composed [sic] of mean huts or wigwams similar in form and materials to those we have already described at the Mission of San Francisco and containing about the same number of Natives converted to the Christian Religion by the indefatigable and persuasive endeavours of these worthy Fathers. These Natives are usefully employed in the various occupations necessary for the support of the Settlement and their own subsistence. They were at this time building for themselves under the direction of the Fathers a long row of Houses similar to those of the Spaniards, with two snug Apartments in each, and when they once experience the comforts and conveniences of these dwellings, there is no doubt but they will be induced to continue a plan so laudable and which cannot fail to contribute greatly to their general welfare and happiness (Eastwood 1924:278–280; Skowronek et al. 2006:156–159).

In 1793, the annual report noted that “14 adobe houses with thatched roofs for the Indians were built. 2 houses of adobe measuring 10 varas [27.3 ft.] with a dirt loft and straw roof” (Skowronek et al. 2006:162). The distinction between the two kinds of construction is not clear, but the description implies that the latter two houses were of cruder construction. In 1794, nine more

houses “have been built adjacent to each other, for the Indians, and of the same style as last year” (Skowronek et al. 2006:165).

In 1800, President of the Missions Father Lasuén responded to charges regarding living conditions in the Alta California missions. He specifically noted the following about Mission Santa Clara, indicating that the neophytes were living in native-style houses as well as the adobe rows of rooms:

[Question:] “In what condition are the quarters of the Indians in general, and of the girls and single men in particular?”

Outwardly they do not differ from those of the Indians in general, for they are made of palisades and grass. They protect against the weather, but are not secure against fire. Until now it has not been possible to provide more convenient quarters, owing to the necessity of constructing the requisite buildings for the produce and other goods; but they are very decent and comfortable, round in shape. They are not as small and narrow as those of the pagans, inasmuch as they measure six yards in diameter, some even seven and eight yards. Adobe structures are being erected gradually and

covered with tiles. The adobe houses are between six and seven yards [*varas?*] long and four and one-half yards wide. Each has a door and a window (Engelhardt 1915:2.574; Skowronek et al. 2006:180).

There is a hiatus in the annual reports between 1797 and 1809. Beginning in 1810, the annual reports regularly state that for the most part, existing buildings were reroofed. Although other structures are reported, no new neophyte adobe quarters are noted after this date. After 1811, and the influx of Yokuts-speaking natives into the mission, more native-style housing would have been required. Yokuts residences were similar in shape to their Ohlone counterparts (Latta 1949; Wallace 1978). An oval framework of light poles was placed over a circular depression and overlapping tule mats (made from vegetal materials found in abundant freshwater sources) were laid on top of the framework. Houses were generally placed on flat areas next to water sources, and were constructed and abandoned according to the dictates of seasonal rounds.

Captain Otto von Kotzebue of the Russian Imperial Navy visited Mission Santa Clara in 1824. He described the area, vegetation, livestock, and the mission complex itself:

They consist of a large stone church, a spacious dwelling-house for the monks, a large magazine for the preservation of corn, and the Rancherios, or barracks, for the Indians, of which mention has already been made [of the Indians]. These are divided into long rows of houses, or rather stalls, where each family is allowed a space scarcely large enough to enable them to lie down to repose (von Kotzebue 1830; Skowronek et al. 2006:245).

Captain F. W. Beechey, during his voyage in the Pacific, visited Mission Santa Clara in 1826. He noted “five rows of buildings” for neophyte accommodation (Mayfield et al. 1981:35). Beechey also noted that these buildings were for a population of “1,400 Indians, who since Vancouver’s visit, have been provided with comparatively comfortable dwellings, instead of occupying straw huts, which were always wet and miserable” (Skowronek et al. 2006:264).

The annual reports do not state how many rooms were in each row. Given the population of neophytes, which the 1826 report lists at 1,428 individuals (Skowronek et al. 2006:370), there were still simply not enough adobe houses for all neophytes, even considering that young girls of marriageable age were housed separately in the quadrangle building adjacent to the church, in the

dormitory known as the *monjerio*. It seems very probable that some families continued to live in native houses. It is most likely that neophytes who had lived longest at the mission, and had gained the trust of the missionaries, would be housed in the adobe structures (Farris 1991:40; Allen 1998:51; Farris and Johnson 1999:8). Newer arrivals constructed their own native-style houses in which to live.

Contemporary drawings and travel accounts by seafaring Europeans also describe native-style houses within other missions. Auguste Bernard Duhaut-Cilly, a 19th-century explorer who visited California in 1827 to 1828, near the end of the mission period, depicted native houses at Mission San Luis Rey alongside temporary Spanish/Mexican-style palisade (*palisada*) buildings (Figure 7). In the drawing, the native houses are in an open area in front of the adobe church and quadrangle of Mission San Luis Rey (Egenhoff 1952:43). Alfred Robinson, traveling in 1829, produced a drawing of San Luis Rey with much the same perspective, although he did not depict either the temporary *palisada* or the native structures, perhaps in an effort to “clean up” the perspective. Interestingly, Robinson depicted native structures at Missions San Gabriel and San Buenaventura (Egenhoff 1952:48–50). He also described the native residences: “In many of the villages the residences consist of straw huts of an oval form, which, when decayed, the Indians set on fire and erect new ones” (Egenhoff 1952:48). José Cardero, visiting in 1792, also drew illustrations of Carmel Mission that show rows of native-style houses (Cutter 1990:83,130). At Mission Santa Inés as well, the number of neophytes required that the majority of them would have lived in traditional-style houses. Importantly, the area of the probable Indian village has been identified (Wilcoxon et al. 1989a:26–28). An artist’s reconstruction was commissioned for the interpretation of archaeological investigations at Mission Vieja de la Purísima (the first location of this mission). Although not archaeologically confirmed, the illustration shows native-style huts that extend out behind and to the side of the south wing of the mission quadrangle (Costello 1994b:76).

Archaeological Evidence

Evidence of native-style housing had not been archaeologically encountered until the recent



FIGURE 7. "Vue de la Mission de San-Luis-Rey en Californie, Voyage Autour du Monde, 1834," by Auguste Bernard Duhaut-Cilly. (Courtesy of the Bancroft Library, University of California, Berkeley, G440.B48 Vault v.1opp.p.215; also reproduced in Egenhoff 1952:43.)

excavations at Santa Clara. The housepit that marked the location of the native house was circular in plan view, and measured 9.8 ft. (3 m) in diameter. First identified as an irregularly shaped stain in the bottom of an open-area excavation, a half circle became apparent as more overburden soil was mechanically removed (Figure 8). Hand excavation of the feature revealed the details of this remarkable find (Figure 9). The circular housepit was shaped like a shallow basin with sloping walls and a flat floor, and a slightly raised berm extending around the eastern half of the housepit, and likely continuing on the western edge. In the center of the housepit, archaeologists encountered an intact hearth filled with ash. A posthole was situated just south of the hearth. A second posthole, on the opposite side of the hearth, was truncated and expanded by the excavation of a pit that clearly had been dug into the abandoned and burned housepit at a later date. From the housepit, what was interpreted as an entryway extended westward. A small, shallow secondary hearth was found at the western extension of the entryway. This suggests that the entryway itself was not covered, but became hard

packed with use. Another post-abandonment pit feature truncated the hard-packed entryway at its westernmost extension.

Soil in the section of the housepit clearly indicated that the house had been burned after abandonment, a typical pattern of native residential abandonment, and one indicated by Robinson and ethnographic information. Burned vegetal material covered the floor of the housepit, and was subject to pollen, phytolith, and macrofloral analyses (Cummings et al. 2008). Remains from the sunflower family (*Asteraceae*) dominated the pollen record, leading researchers to posit that evidence of this European-introduced plant was either from cooking fires built within the structure, used as part of the house frame, or a vegetal layer used to cover the dirt floor. Phytolith evidence showed the presence of cut straw, probably brought in on clothing, as there was not enough evidence to suggest that straw was used to cover the floor. Soil samples from the hearth and surrounding areas were also sent out for pollen and macrofloral study. The reports by G. James West and Eric Wogelmuth are in Allen et al. (2009). The macrofloral sample contained



FIGURE 8. Large spikes mark the row of pits, visible as stains after removal of overburden; archaeologist Dave Makar is in the foreground excavating one of these pits. The beginning of the housepit outline is just above the approximate center of the photograph. (Photo by author, August 2004.)

elements of food remains (black walnuts, wheat, elderberries, and maize/corn), as well as evidence of tobacco use. Other vegetal elements were sunflower family members, manzanita, a goldenbush-type shrub, arrowweed, white oak, box elder, and willow/cottonwood. The woods may have formed part of the structure.

Evidence for dating the housepit comes from the presence of locally made roof tiles and ceramic vessels. According to Spearman (1963:49), ceramic roof- and floor-tile manufacturing began at Mission Santa Clara in 1795. Schuetz-Miller (1994:91) notes that in 1796, José Antonio Romero, a soldier at the San Francisco Presidio, was sent to missions San Francisco, Santa Clara, and Santa Cruz. The idea was that the artisan would teach neophytes the skills necessary to make ceramics of local clay.

Archaeologists also recovered a small number of shell beads from the housepit, providing additional information on the approximate date of

the feature. Hylkema and Allen (2009) summarize the number and kinds of *Olivella* shell disc beads recovered at Mission Santa Clara, and indicate that a bead type labeled as H1a is attributed to a temporal span described as early mission period, ca. A.D. 1770 to 1800. The edges of this type are ground smooth. A later type of similar *Olivella* disc bead is given the designation of H1b. These are similar in size and shape to H1a, but the degree of edge grinding diminished during the later mission period, ca. A.D. 1800 to 1816 (King 1974:91; Gibson 1976). A third kind of bead has been designated as H2; its edges are chipped only and not ground in any way. Like the H1b beads, H2 beads are from later mission periods (after 1800). From the living surface outside the housepit, a single H1b bead was recovered. From the post-abandonment fill, one medium-sized *Olivella* spire-lopped bead (A1b) was found, as well as an H2 bead. Two abalone beads, similar in shape and size to the *Olivella* ground beads were found. One bead showed signs of having its central hole drilled with a stone tip (H7a1), and the other with a needle (H7a2). Five clamshell beads (both stone-tip and needle-drilled varieties) were also found in the post-abandonment fill. Clamshell beads generally represent an economy that has been documented within late prehistoric and post-European contexts among Native Californian groups of the North Coast Ranges, South Coast Ranges, and interior San Joaquin Valley (Hylkema and Allen 2009). Their presence suggests Yokuts-speaking peoples. Overall, the shell beads, although few in number, suggest that the housepit feature dates after 1800.

A Desert Side-Notched projectile point was also recovered from the living surface associated with the housepit. The blade and tip of this Franciscan chert specimen was reworked; and it had also been exposed to heat (from the burning of the housepit?). From the post-abandonment fill, one Cottonwood triangular point was recovered. Hylkema (Allen et al. 2009:appendix I-D) notes the Cottonwood type is very common in late prehistoric and mission-period contexts in southern California. It is rarely found in Santa Clara Valley, but it was made of Franciscan red chert, a locally available material. While both of these projectile points are associated with mission-era deposits, further refinement of dates is not forthcoming. Their presence also suggests



FIGURE 9. Clinton Blount photographing central hearth in housepit. (Photo by author, August 2004.)

a cultural affiliation with Yokuts groups to the south of Santa Clara.

The location of the housepit, west of the third mission church, suggests that this area was occupied after the rows of adobe neophyte housing were constructed, that is, also after about 1800. During that time, the neophyte population numbered more than 1,300. As noted above, after 1811 there was an influx of Yokuts-speaking natives into Mission Santa Clara. These new converts would have constructed native-style houses to live within the mission community.

Several other pit features were found in the vicinity of the housepit, and represent a neophyte living and use area that likely postdates the use of the housepit. One of these certainly did, as it was cut into the burned remnants of the native house and overlying strata. These pits are interpreted as caches, either for food or belongings, or both. They were filled with material similar to

that recovered in the housepit, that is, *tejas*, animal bones, ceramics, and chipped-stone artifacts. Most remarkable was the quantity of shell beads found (Hylkema and Allen 2009). The presence and content of the pits indicates that the area was used for neophyte housing for an extended period of time, and neophytes may have used these pits to store (or hide) food and potential trade items, as well as to provide a convenient place for later discard.

To the northeast of the housepit feature, archaeologists encountered a long, linear rock feature. A portion of this same foundation was identified in 1996 (Skowronek et al. 2006:147). Clearly a large structure, it does not appear on any historic maps. At this time it seems too out-sized to be a foundation for a neophyte housing row, especially in comparison with the foundation of the Santa Clara Woman's Adobe, and was likely a granary building, but one that is not noted in the extant annual reports.

To the north and further west of the business school area, four other similar mission-era pit features were found. Field methodologies in this area designated for a new Jesuit residence and parking also emphasized removal of the overburden and open areas of excavation. Archaeologists directed a backhoe as it stripped away pavement, fill, and other modern intrusions and exposed the historic ground surface(s). This process consisted of both vertical and horizontal excavation, usually accomplished with heavy equipment. Excavation depth did not generally exceed the vertical project impact unless it was necessary to excavate and expose features. If the tops of features were to be impacted by construction activities, then the entire feature was excavated. All features were hand excavated, and wet screening occurred concurrently with the field effort.

Great amounts of roof tile and animal bone filled the pit features. The pits seemed to be of two varieties. The first, roughly conical in shape, were excavated to about 3–4 ft. in depth. The second type combined two associated pits, with larger, deeper pits (up to 5 ft. in depth) dug adjacent to shallower “platform” pits (2–3 ft. in depth). These “platforms” would have allowed easier access to the deeper pits; one pit had hand- and footholds visible in the sidewalls. Given their larger size, the bigger pits may have originally been used as adobe borrow pits, similar to the one found several years earlier (Hylkema and Skowronek 2000). In addition to the roof tile and animal bone, all pits had domestic materials found within the fill, including chipped stone; clamshell, *Olivella*, and glass beads; imported and local ceramics; charcoal; fire-affected rock; and other cultural debris. Further reporting on these features is currently underway.

To the east of these pit features, and to the west of the Santa Clara Woman’s Adobe (the neophyte structure), the foundation of another adobe neophyte residence was found. As the proposed disturbance in the area of this possible residence was limited to a light pole, only minimal excavation occurred. Recovered artifacts were few in number, but included faunal and shellfish remains, roof tile, adobe-block fragments, fire-affected rock, a single glass bead, and a single sherd of Mexican lead-glazed earthenware. The feature was protected and left in situ.

Archaeologists also encountered an area of butchering. Backhoe trenches were used to



FIGURE 10. Area exposure, used to determine depth and boundaries of Feature 1, a large butchering area. (Photo by author, 17 March 2005.)

determine the extent of this sizeable refuse feature. Shallow mechanical scrapes, stepped to help determine stratigraphy, revealed that the feature covered a very large area (Figure 10). A deeper trench on the east side of the feature illustrated a section of what was now recognized as a large mission-period animal-bone refuse scatter. Study of the section suggested that deposits within the refuse pit were not particularly variable, and that contexts exposed in the deeper trench were much the same as the shallower exposures. It also indicated that during the mission period there was a small hillock dipping to a drainage in the area. The animals seemed to have been butchered on the hill, and non-useable animal parts and other trash were “tossed” down the side. During the later American period, the area was filled and flattened, and remains so today.

In a preliminary report, Garlinghouse (2007) reported that approximately 8,210 fragments of faunal material were recovered from mission-era archaeological contexts. The vast majority of the bone was highly fragmented and/or burned, so that only undifferentiated mammal or vertebrate subphylum could be identified. As a result, only about 20% of the assemblage was identified, including domestic cattle (*Bos taurus*), sheep/goat (*Ovis/Capra*), rabbit/hare (lagomorphs), and other rodent. Cattle bone represented about a third of the identifiable material, and three types of butchering marks were found on these materials. Knives and axes were the main instruments used during the Spanish and Mexican periods for butchering cattle, leaving cut and hack marks

typical of the mission period. Gust (1981) has described these patterns. There was also evidence of spiral fracturing—a smash and twist method—that represents a common technique for marrow extraction among prehistoric Native Americans. As Garlinghouse (2008) notes, “the implication then is that at least some traditional Native American butchering practices survived missionization, especially with regard to the processing of limb bones of large mammals.” The feature is an interesting counterpoint to the *matanza* reported by Burson (1999). As with previous excavations, narrow trenching or smaller units would have masked the coverage and the content of this large butchering feature. Only broad expansive removal of overburden showed its extent and purpose.

Reconsidering Mission Land Use and the Archaeological Record

The author has conducted research at a few other mission sites in California. At Santa Cruz, research focused on a standing adobe neophyte residence similar to the building found at Santa Clara. California Department of Parks and Recreation archaeologists conducted excavations in support of restoration of the adobe building and the creation of public space (Felton 1987; Allen 1998). Excavations focused on the interior of the structure, and recovered construction materials, ceramics, glass, faunal remains, organic food and vegetal remains, metal, leather, shell and glass beads, and miscellaneous personal artifacts. Some artifacts were also recovered directly from adjacent yard areas and included some trash deposits. Governed by project constraints, archaeologists recognized that “[w]hile the archaeological assemblage recovered was rich, it was also limited in its ability to fully describe the past” and represented “only a small portion of neophyte everyday life” (Allen et al. 2003:11). In part this was a comment on the limits of the archaeological record, but it is also a commentary on the location of the excavation units. Neophytes did not constrain their activities to areas only *within* and *nearby* buildings; much of the land surrounding the surviving neophyte adobe remains an untapped archaeological resource for discovering other more temporary land use and residential areas. Recent excavations at Santa Clara make one wonder about the

impact of project constraints, and consequently what parts and evidence of neophyte daily life, from archival, ethnographic, and archaeological evidence, the author’s dissertation research was not able to consider.

Similarly, as part of a team of researchers studying an update of the National Historic Landmark description and boundaries for Mission Santa Barbara, the author’s attention focused primarily on standing buildings and structures (Allen and Felton 1998; Allen et al. 2000). In large part, this is due to the nature of the program and designation process. Identified contributing elements included the mission church, quadrangle, adjacent cemetery, fountain, laundry, filter house, reservoirs, visible aqueduct systems, and dams. Structures that had deteriorated but of which much was still visible were identified as contributing archaeological features: garden, pottery, tanning vats, grist mill, and a stone building of unidentified function. The text also noted that based on a study of historic maps and historians’ reports (Webb 1952:103; Geiger 1963:12,70), many other buildings, structures, and landscaping elements were likely present in the archaeological record, including a corral, threshing floor, neophyte adobe residences, orchard walls, kilns, granary, gardener’s house, soldiers’ quarters, etc. Recent discoveries at Santa Clara make the author look at historic maps and historic drawings in an entirely new light, and realize that while structures may be a good place to begin archaeological investigation and plan for preservation whenever possible, envisioning the potential for archaeological features of everyday life and activity areas should not be so constrained.

Much of the historical and archaeological literature considers the impact of the mission on the Native American communities, and the transformation of cultural self-identities and practices. The same has to be true of the missionaries; interactions with the neophytes must have altered their worldview as well as their daily activities. Consideration of the archaeological record of everyday life, in the spaces where those activities occurred, is critical to understanding these cultural nuances and transformations. It also has important implications for the ecological and biological transformation of nearby lands that occurred along with the colonization. These kinds of studies will require investigations that stretch the planning for where excavations occur, in

order to define or redefine known areas of land use, and move away from the structures. Findings also prompt reconsideration of documentary and ethnographic lines of data and evidence, expanding the historical and archaeological view of Alta California's mission past.

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