Recent archaeological research at Mission Santa Catalina

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Since 2005, the Santa Catarina Archaeological Project has been investigating the site of Mission Santa Catalina, which is located on the far northeastern margin of the Dominican mission system in Baja California (Figure 1). Santa Catalina was home to Paipai-speaking individuals and families, although some Kiliwa- and Kumeyaay-speaking people were likely attached to the mission as well. Today, the direct descendants of the mission neophytes continue to live near the mission ruins in the modern Paipai community of Santa Catarina, offering an intriguing example of native people successfully negotiating the complex social terrain of the colonial period. In this paper, we will discuss our ongoing efforts to understand better the archaeological deposits associated with the mission site, as well as our developing ideas about how the indigenous neophytes of Mission Santa Catalina were able to create a distinct tribal identity during a time of dramatic social and biological change.

Mission Santa Catalina was founded in 1797 and was destroyed during a native uprising in 1840. Today, the mission site is little more than low mounds where the walls of the compound once stood. Looting and archaeological excavations that took place during the 1940s and 1950s have also impacted the mission site. Accordingly, our initial work at the site was designed to gauge the impact of these disturbances. In 1949, two American treasure hunters tried unsuccessfully to find relics of the mission period that might have monetary value. Unfortunately, the total extent of their looting is unknown, but based on accounts and photographs from the time, this activity appears to have taken place in the northern section of the mission quadrangle (McDonald and Oster 1968:14).

Similarly, the specific locations of the excavations conducted by archaeologists from the University of California, Los Angeles at the mission in 1959 are not known, as very little documentation from that project survives. From the one published account, as well as from the provenience information that accompanies the artifacts collected during the project, we are relatively confident that these excavations took place in the shallow cultural deposits that characterize the open space inside the mission compound (McKusick and Gilman 1959). UCLA also excavated in an area south of the mission, which we will discuss below. Despite these disturbances, our investigations have shown that much of the archaeological deposit associated with the mission is intact, particularly in two midden areas that are located adjacent to the northeastern and southeastern walls of the complex (Figure 2). Our investigations have thus far focused on these two midden deposits, which we believe are associated with neophyte habitation areas.

Nevertheless, it is possible that the mission site may have been occupied before the arrival of the Dominicans in 1797. One aspect of our current research, then, has been to determine if the midden deposits are contemporaneous with the mission compound. It is well-documented that one of the principal reasons for the choice of Santa Catalina as a mission site was its ready supply of water and indigenous people (Meigs 1935:120; Nieser 1960:269-271**).** The Bernal and Ruíz

Figure 1. Missions of the Dominican Frontier.

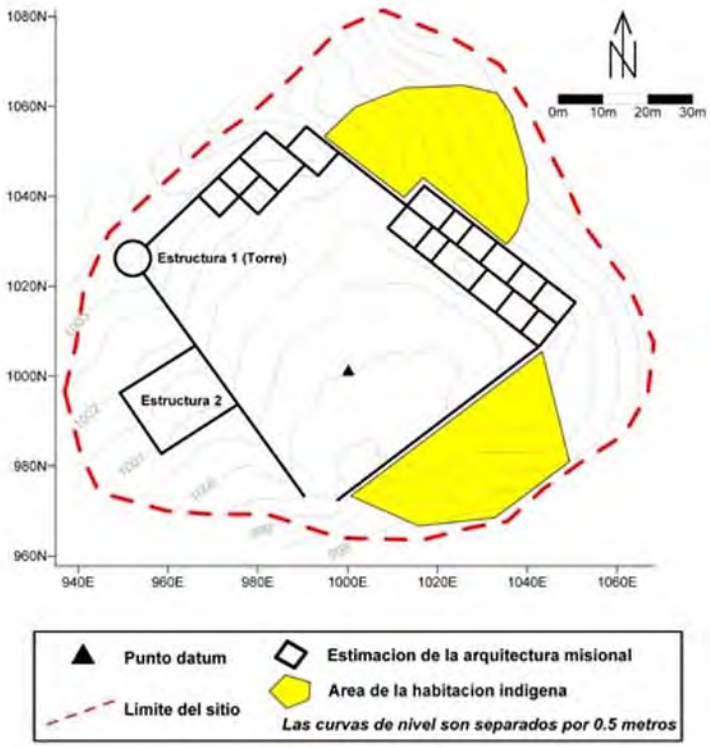

Figure 2. Catalina Mission site plan.

expedition of 1795 in particular noted the presence of year-round water and states that five Indian rancherías were located in the region of the mission site, numbering perhaps 500 individuals (Mason 1978:279; Nieser 1960:269-270). While some questions remain about the seasonality of the region's occupation, there is no doubt that given the reliable water supply, the area around the mission would have been attractive to people living in the Sierra Juarez during pre-contact times. In fact, the Paipai name for the area around the mission site is Jactebojol, meaning, "the place where water crashes over the rocks" (Mike Wilken, personal communication).

There is also little doubt that the area around the mission site holds archaeological traces of pre-contact occupation. Up to this point in our research, we have centered our archaeological investigations on the mission site itself. Yet informal reconnaissance suggests that the region from the mission site to the valley of San Miguel, some 3 km to the south, contains a low-density scatter of lithic artifacts. Furthermore, the area directly adjacent to the part of the arroyo that collects water year-round contains archaeological deposits dating from prehistory to the present. Today, this area is particularly sensitive due to the fact that it holds the community cemetery as well as a number of private residences. Nevertheless, one can see certain areas that contain dark, organic soils with relatively high densities of surface artifacts, as well as a number of bedrock mortars on the granite outcroppings near the arroyo. In fact, the area across the arroyo from the mission site attracted the attention of the UCLA archaeologists who in 1959 excavated a 70-x-10-ft. trench there in order to obtain a sample of locally produced pottery (McKusick and Gilman 1959). This arroyo formed one of the main thoroughfares between the Santa Catalina and San Vicente missions, and the area along its course would have been an important locale for water and transportation both before and after the founding of the mission.

In the autumn of 2007, we conducted excavations at the mission site designed in part to establish a relative chronology for the dense deposits located directly outside the mission walls. Based on a gradiometer survey that we conducted in 2006, we chose a location on the northeastern wall to begin our excavations. Once we expanded the excavations, we uncovered not just the mission wall, but also the corner of a room. The top of the stone foundations was less than 10 cm below the modern ground surface, but the wall foundations were extremely well preserved in this area, despite the lack of surface features indicating their existence.

In total, we excavated only a small area -- 3 m east-west by 2 m north-south -- but this nevertheless provided intriguing clues into the construction of the mission wall foundations and their relationship to the dense deposits that lay to the northeast. Within the 3-x-2-m excavation unit, the western portion comprised the interior of the mission room, while the eastern part was characterized by midden-like deposits. The thick stone wall foundations in the center of the unit rested upon a layer of adobe, which itself extended a few centimeters to the top of culturally sterile soil (Figure 3). No evidence of construction trenching was noted during excavation, nor was it possible to detect in the profiles any form of trench surrounding the wall.

The deposits also differed significantly between the interior of the wall and the exterior space. Inside the corner of the room, we encountered very few artifacts in the first 20 cm or so, most of which was adobe melt. We then encountered a layer of burned adobe and charcoal, which we interpret as remnants of the conflagration that destroyed the mission. Just below that, we encountered a thin layer of fine sediment underlain by a compact surface. This surface, which we believe was the floor of the room, was approximately 40 cm below the modern ground surface. We screened the fine soil of this interface through $^{1}/_{16}$-in. mesh, but all we recovered were small rodent bones. Underneath this floor surface, we encountered a layer of fill, which contained randomly placed stones and unaligned adobe bricks. At a depth of about 55 cm, this fill gave way

Figure 3. Mission foundations uncovered during excavations in 2007.

to culturally sterile granitic soil. Cow bones and metal objects were found among the lowest strata, although no midden was found below the floor of the room.

Outside of the walls, the entire deposit was characterized by moderately dense midden to the same ending depths at which bedrock was encountered in the interior of the room. The area directly north of the wall contained adobe melt or wall fall to a depth of almost 50 cm, but no foundation remains were encountered outside of the corner itself. Interestingly, we noted an area of fine sediment that occurred in thin layers directly beyond the corner of the foundations. This area, which we excavated separately, appeared to be caused by water dripping from the corner of the roof when the structure was still standing. This sediment occurred from a depth of 10 to 54 cm below the modern ground surface. This further suggests that the midden deposit is contemporaneous with the mission structure at least to this depth, which is only 7 cm above bedrock.

This area is just a few meters from a series of excavations that we conducted in 2005 and 2006, which were designed to test the rich cultural deposits adjacent to the mission walls. In 2006, for example, we excavated a block of eight 1-x-1-m units in this area to investigate magnetic anomalies revealed in the aforementioned gradiometer survey (Lightfoot el at. 2007). At a depth of approximately 40 cm, we encountered a living surface, with many artifacts found lying horizontally on the surface, and others, including several matching glass beads, embedded in the surface itself. We also uncovered burned wattle and daub in the stratum directly above the surface. This may represent the remains of an indigenous dwelling, and future excavations will further test this area.

Figure 4. Surface density of indigenous ceramics, in 20-g contours.

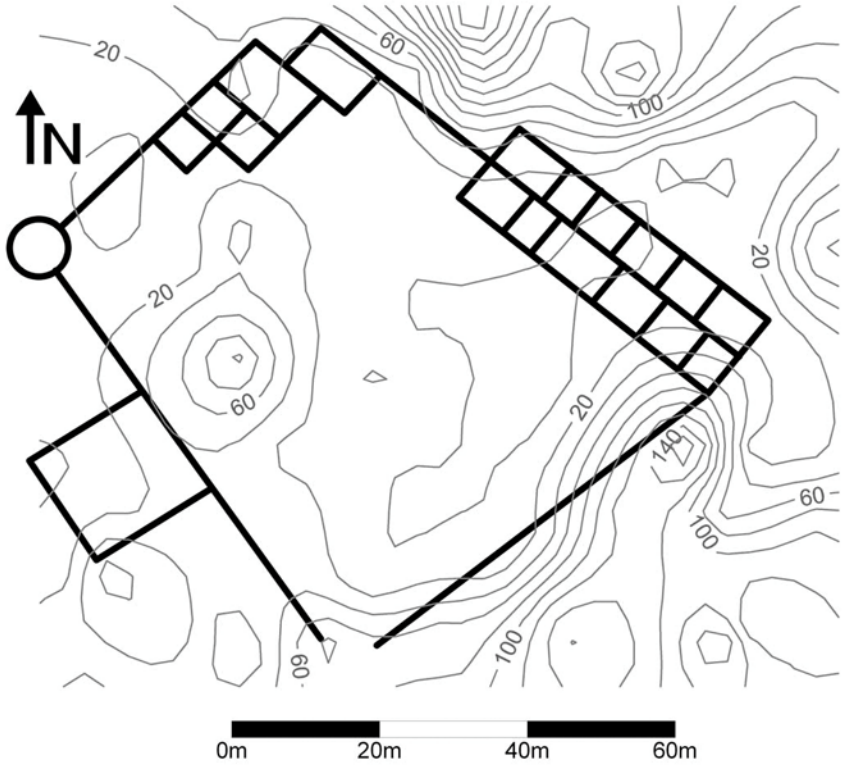

Figure 4. Surface density of indigenous ceramics, in 20-g contours.

In 2007, we had also hoped to conduct excavations that would help us to understand the association between the mission construction and the midden deposits on the southeastern wall of the compound. Unfortunately, a death in the community of Santa Catarina prevented the completion of our excavations in the time we had allocated. Nevertheless, the results of a systematic surface collection that we conducted in 2005 suggest that both midden areas extend only to the exterior edge of the mission compound, as the surface density of archaeological materials trails off significantly between the exterior and interior of the mission walls (Figure 4). A test unit placed inside the mission compound further demonstrated the difference between the exterior and interior deposits. There, the cultural deposits were much shallower -- approximately 20 cm -- and were less dense than the those located outside of the mission walls (Lightfoot et al. 2006a).

While it is certain that indigenous people occupied the area near Mission Santa Catalina in pre-contact times, there is no evidence that the mission site itself was occupied or used extensively before the construction of the mission. We have also not encountered any evidence that would indicate a substantive post-mission occupation of the site. Nearly all the historical artifacts we have collected from the mission fit within the period of its use. Paipai oral traditions, moreover, maintain that the people moved to the nearby valley of San Miguel after the destruction of the mission, only to return in the early twentieth century. In sum, our investigations at the mission site suggest that the deposits associated with the mission compound are in fact contemporaneous with it. This knowledge will aid us in taking the next step in our research, which is to begin to understand better how the indigenous neophytes of Mission Santa Catalina maintained their native identity during

the colonial period.

The mission period was particularly devastating to the indigenous peoples of Baja California, and speakers of the Paipai, Kiliwa and Kumeyaay languages are among the only ethnolinguistic groups in the region to survive the colonial period (Álvarez 2004; Rodríguez 2002). Today, these linguistic divisions mirror the modern tribal identities of indigenous groups living in the mountains of northern Baja California. In the past, however, political and social organization was based around patrilineal, exogamous lineages (Owen 1965). In pre-contact times, these hunting and gathering lineages likely maintained specific homelands in which many primary food resources could be found (Hicks 1963; Owen 1962). Small game hunting and the collection of marine resources were also important aspects of the indigenous economy, and the seasonal round for any one lineage could stretch from the interior ranges of the Sierra Juárez and Sierra San Pedro Mártir westward to the Pacific Ocean and eastward to the Colorado River delta and the Sea of Cortez (Hicks 1963; Hohenthal 2001; Owen 1969). During the colonial period, many of these lineages came together at Mission Santa Catalina, where collective identity was reinforced as the Paipai coalesced around a more consolidated political organization. Yet in the case of the Paipai, evidence suggests that mission neophytes also maintained strong ties to their ancestral homelands, and that these social and natural resources provided additional avenues for the maintenance of indigenous identity.

Both historical and archaeological evidence points to the fact that neophytes at Mission Santa Catalina had various opportunities to maintain aspects of indigenous lifeways. For one, the relations between the Dominicans and their would-be subjects were not especially warm. Documents from the time of the mission's founding, for example, cite the need for reinforcements of soldiers and artillery to secure the mission, while others record attacks on mission livestock and the murder of Spanish soldiers (Mason 1978; Nieser 1960). From 1812 onwards, moreover, Santa Catalina did not have a missionary of its own, and by 1840, Santa Catalina was just one of four missions administered by a single missionary (Nieser 1960:280). Additionally, the relatively small crop yields and livestock holdings at the mission likely required the inclusion of native foods in the neophyte diet (Meigs 1935:121).

Archaeologically, we have recovered many material traces of the connections neophytes had to the world outside of the mission. Along with the ubiquitous cow bones at the mission site, we have also found the remains of mule deer, desert cottontail and black-tailed jackrabbit, as well as various bird bones and small numbers of fish vertebrae. A modest amount of marine shell has also been recovered, comprising abalone and clam shells as well as several *Olivella* shell beads. Obsidian artifacts recovered from the site can be traced to the Arroyo Matomí source south of San Felipe, and in our preliminary XRF analysis of indigenous ceramics collected from the mission site, over 15% were not produced from local clays (Lightfoot et al. 2006a, 2007; Panich and Wilken 2006).

Overall, the artifacts uncovered in our investigations fit with our expectations that native people at Mission Santa Catalina continued their hunting and gathering practices during the mission period. This situation is not unique to Santa Catalina; many other missions in the Californias allowed Indian neophytes to leave the mission at certain times of the year to supplement the stores of food available at the missions themselves (Guest 1983:45; Johnson 2005:71; Kelsey 1985:505). Understanding the nature and extent of neophyte hunting and gathering practices in the California missions is an important subject for scholarly inquiry, and we believe that the ability of neophytes to maintain certain subsistence practices likely had larger implications for the continuation of social relationships and the persistence of native identity

(Lightfoot 2005; Lightfoot et al. 2006b). Although the mission period brought very real changes in social organization, demography and material culture, native peoples reworked cultural practices to fit their new colonial circumstances. The ability to use familiar resources in their ancestral homelands likely reinforced connections to pre-contact lifeways, and regular interaction with unmissionized groups allowed Indian neophytes to remain active participants in regional social networks.

Yet we are also beginning to see evidence of shared practices among the neophyte population, as well as the incorporation of new, hybrid artifacts. Ceramic vessel forms extrapolated from large rim sherds recovered from the mission site include forms that enjoyed wide use in pre-contact times, such as the narrow-mouthed olla, as well as new, perhaps European-influenced forms such as plates. While mission neophytes elaborated pottery vessel forms and decorative motifs during the mission period, the use and production of pottery remained an important cultural practice that was distinctively indigenous. Of seven projectile points and projectile point fragments collected at the site thus far, six are obsidian and one was made from green glass, and all display a marked uniformity of form. All are small, triangular side-notched points with straight to slightly concave bases, which fall into the general Desert Side-notched cluster as defined by Justice (2002:379). We also uncovered a deer antler pressure flaker, further pointing to the continuation of flint knapping despite the availability of metals at the mission. In sum, these artifacts begin to fill in the picture of how daily practices were transformed and reproduced among the mission's neophyte population.

Based on our ongoing archaeological and historical research into the lives of mission neophytes at Santa Catalina, it appears that the native people who came to the mission created durable social relationships, and members of several lineages likely came together in new and stronger social bonds. These same families and individuals also retained ties to broader physical and social landscapes, participating in hunting and gathering activities as well as the trade networks that cross-cut the ethnolinguistic divisions of the region. During the mission period, the lands around Mission Santa Catalina, and later the Paipai community of Santa Catarina, became the effective center of a new form of social and political organization. But like the Paipai, Kumeyaay and Kiliwa lineages of pre-contact times, the mission neophytes and their descendants maintained close social and economic relationships with other communities in the area. Ultimately, we believe these connections to the worlds outside the mission walls allowed the Paipai of Mission Santa Catalina to maintain distinct identities amid the broad social changes of the colonial period.

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