"A Song of Resilience": Exploring Communities of Practice in Chumash Basket Weaving in Southern California

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This paper uses 'communities of practice' as an analytical framework to investigate the ways in which Chumash basket weavers reconstituted themselves and persevered during and after the colonial period in south-central California. Specifically, we focus on two distinct and chronologically-sequential Chumash basket weaving communities, including one group of weavers who lived at Mission San Buenaventura in the early 1800s and another group who fashioned baskets for the global market at the turn of the twentieth century. A detailed examination of baskets produced by these weavers and curated in museum collections reveals both similarities and distinct differences in manufacturing techniques and design styles. We suggest that during a time of cultural and political upheaval, the existence of basket weaving communities played a large part in the perseverance of Chumash cultural identities in these two historically-distinct contexts. Interviews with contemporary indigenous basket weaving communities that continue to thrive today.

HUMASH BASKET WEAVERS HAVE LONG BEEN acknowledged as having been among the most skilled weavers in the world, fashioning baskets with colors and designs so finely woven "as to strike one with wonder" (Crespí 1769 in Brown 2001:391). In fact, their baskets were so avidly collected by early Spanish colonizers in the Santa Barbara Channel region that entire towns would sell out of them, causing complaints among subsequent travelers to the area (Shanks 2010:13). That Chumash weavers came to be revered for the construction of exquisite baskets and had mastered the skill at the time of Spanish contact is no surprise, because baskets permeated their everyday lives. Not only were baskets traditionally made for trade/exchange and ceremonial purposes, they were also intimately linked to a variety of domestic needs, such as measuring trade goods, cradling newborn babies, stocking away money and other

valuables, as well as collecting, processing, cooking, storing, and serving food and water (Craig 1967; Dawson and Deetz 1965; Grant 1978; Hudson and Blackburn 1982, 1987; Shanks 2010; Timbrook 2007). While contemporary Chumash weavers may not necessarily weave for all of the same reasons that their ancestors did (for cooking, storage, etc.), weaving continues to play a vital role in the survival and transmission of cultural identity for Chumash people today.

Ethnographic evidence from around California suggests that traditionally, women were primarily responsible for the production of baskets, although men were known to occasionally make baskets as well (Anderson 2005; Gamble 2008; Hollimon 1990). Knowledge shared by both historical and contemporary weavers attests to the considerable time required to make a basket, which can take some weavers months or even years to complete, depending on the size, design, and availability of materials (O'Neale 1995; Yamane 2015). The process often begins with the employment of various techniques to encourage plants to grow in the right way in order to produce good materials, followed by the gathering of plant parts during the proper season of the year (Anderson 2005:187-208). These practices require an extensive knowledge of the local environment, plant seasonality, and the diversity of native flora. Plant materials are first split, stripped, and set aside to dry for a period of several months to a year. They are then dyed (if desired), cleaned, sized, and soaked again to make them flexible for weaving. Next comes the construction of the basket itself. A skill set is needed at every step of the process, which involves knowing how to begin a foundation structure, sew over a coiled foundation, or-in the case of twining techniques-place the design, control the shape, and construct the basket, taking into account its overall function. When a basket begins to take shape, it thus evolves through a suite of social practices involving active engagement, learned history (including both generational knowledge and communitybased knowledge), mathematical calculations, and skilled repetitive movements.

In order to produce baskets, weavers need a sophisticated understanding of the landscape, an advanced technical knowledge of basketry techniques, and mentorship within a broader community. Accordingly, basket production embodies historically-constituted traditions, routines, and social networks that offer anthropological insight into relevant processes of identity negotiation, community formation, and cultural resiliency. The present study seeks to identify the relationships between basket making and local notions of indigenous identity by an investigation of the transmission of learning among basket weavers through collective processes, or 'communities of practice,' over time. In the past few decades, scholars from a number of disciplines have explored what Jean Lave and Etienne Wenger (1991) term "situated learning," specifically investigating the transmission and reproduction of cultural knowledge through active fields of participation. According to Lave and Wenger (1991:49-50; see also Wenger 1998), learning involves a developing and continuously renewed set of relationships in which individuals became skilled practitioners through participation in broader

communities of practice. Communities of practice emerge through "mutual engagement, a joint enterprise, and a shared repertoire" of doing (Wenger 1998:73). Through everyday discursive practices brought about by conscious or unconscious habitual repetitive actions, distinct material signatures are left behind (e.g., Dietler and Herbich 1998; Dobres and Hoffman 1994; Dobres and Rob 2005). By investigating the transmission of learning involved in making things, archaeologists have found this concept particularly useful as an aid in identifying issues related to social identity and past social networks, including through analyses of craft production (e.g., Blair 2015; Crown 2001; Gosselain 2000; Minar 2001; Peelo 2011; Roddick 2009; Roddick and Stahl 2016; Sassaman and Rudolphi 2001).

Through joint participation in processes of learning, habitual repetitive actions produce similarities and unintentional commonalities in both behavioral practices and material objects. The identification of communities of practice, grounded in situated learning theory, can be used to materially identify "groupness" in the archaeological record, while avoiding the pitfalls of reifying normative notions of identities (Blair 2015:26). As Blair and others have noted, the analytical utility of the concept of communities of practice increases during historical moments of conflict and turmoil. As a result, another fruitful avenue for the application of this theoretical framework is in the investigation of cultural resiliency and persistence in the archaeological and ethnographic records. Recent scholarship has contributed to a growing body of literature on themes of indigenous cultural persistence, including the ways in which native peoples negotiated everyday life under colonialism in the past, as well as how indigenous societies continue to persist into the present day (e.g., Bernard 2008, Hull 2009, Panich 2013, Robinson 2013; Schneider 2015, Silliman 2009). We suggest that a communities of practice framework offers a unique lens for exploring these issues. First, this theoretical perspective underscores the importance of social interaction among individuals and groups for exploring the meanings behind culture change and continuity in the processes of identity negotiation in colonial settings. Second, it considers the ways by which communities reproduced themselves through proxemic learning processes and the broader social structures in which practitioners were situated, in both

space and time. Finally, this framework is materially grounded and, as we show, can be operationalized using middle-range interpretive methods such as the *chaîne opératoire*. As Gosselain (2000) and others have argued, final production steps, including design style, often have little to do with deep-seated social identities and more to do with historical, social, and economic changes. Rather, the nondiscursive ways in which objects were made can be better linked to social identities involved in such things as kinship, gender, or social class (Peelo 2011), identities that may be crosscut and reconfigured during moments of cultural disruption and turmoil.

Using southern California Chumash baskets as a case study, we examine the step-by-step process of basket manufacturing, including the raw materials used, weaving techniques, design layouts, and the overall form of baskets produced by six women during two distinct time periods. We suggest that although there was change in the weaving techniques (i.e., stitches per square inch) and the design elements employed in commissioned or commercial baskets in response to expanded trade with non-native groups and individuals, weavers formed active communities that supported gendered knowledge production and persistent native identities that were made and re-made throughout the mission and post-mission periods. The formation of basket weaving communities not only created similar patterning in material culture among groups of weavers, but also facilitated a process by which native identity was manifested, expressed, and reproduced during different periods of colonialism. Although weavers created new repertoires of practice at distinct moments in time, the continuation of basketweaving groups was a means by which descendent Chumash women maintained social networks that connected them to a deep ancestral history, as well as to traditional gathering places. However, the historical baskets and communities of weavers discussed here are not just products of the past; they are entwined with the present and continue to act as symbols of Chumash resilience and cultural survival into the present day.

We begin by describing the characteristics of traditional Chumash baskets and the evidence for basketry production in the archaeological record of south-central California. We follow with a description of two distinct communities of basket weavers who lived in Ventura County during the mission and post-mission periods. The first group of weavers was baptized at Mission San Buenaventura between A.D. 1788 and 1807. The second group of weavers lived in downtown Ventura (neighboring Mission San Buenaventura) at the end of the nineteenth century. In an examination of surviving baskets in museum collections, we find both similarities and differences in basket weaving techniques during these two distinct periods. We suggest that the formation of distinct communities of practice resulted in these changes, but also contributed to the active continuation of a broader corpus of basket weaving knowledge. We conclude with a consideration of these baskets as important legacies of Chumash cultural survival. Not only do the baskets studied here sing "a song of resilience" (Sandoval in Timbrook et al. 2010:214) to people in the present day, but also, the art of basket weaving also remains a time-honored tradition that continues to connect native peoples to the land, the past, and broader communities of practice.

HISTORICAL CHUMASH BASKETRY

Archaeological evidence indicates that Chumash-speaking peoples had occupied their ethnographic territory-an area extending south along the south-central California coast from San Luis Obispo County into Los Angeles County and stretching eastward to Kern County- for at least 9,000 years prior to Spanish contact. That geographic area (Fig. 1) also included the four Northern Channel Islands of San Miguel, Santa Rosa, Santa Cruz, and Anacapa. There were several well-established, linguistically-distinct Chumash groups within this region, documented by mission and other historical records and by John P. Harrington's ethnographic research: the Barbareño, Obispeño, Purisimeño, Ventureño, and Ineseño (Samala).¹ Chumashan, the common language family to which they belonged, is considered to have been one of the oldest language groups in California (Golla 2011).

Prior to the arrival of Spanish colonists, the naturally-productive coastal and inland environments of the Santa Barbara Channel region supported high population densities without the use of agriculture; the region's many natural resources were used for a variety of hunting, gathering, fishing, and other technologies by Chumash peoples. Plants were of primary importance; approximately 65 percent of Chumash material culture



Figure 1. Map of Chumash region.

was manufactured using plant materials, especially in the production of baskets (Blackburn and Anderson 1993:23). Species of juncus (especially Juncus textilis, but also J. acutus and J. balticus), sumac (Rhus aromatica, formerly R. trilobata), and other reeds and grasses such as bulrushes (Schoenoplectus spp.) and deergrass (Muhlenbergia rigens) were (and are still) the most commonly used materials for basket weaving, with some species preferred for coiled basketry and others for twined weaving (Craig 1967; Dawson and Deetz 1965; Hudson and Blackburn 1987; Timbrook 2007). For coiled basket designs, the dyed material is Juncus textilis, which picks up the dye well; the sumac is left undyed. Some basket makers intentionally select juncus stalks that have an orange or red basal area so that they can use these colors in their designs. The basket's background usually is a natural light tan to variegated orange-colored juncus and/ or off-white sumac, with darker-colored sewing strands

used for designs. Historically, weavers dyed juncus strips either by placing them into organic-rich mud for several days or weeks or by including Spanish-introduced iron in the dye bath to produce a deeper black (Craig 1966:208; Shanks 2010:15; Timbrook 2014:50).

Chumash basket weavers historically produced both twined and coiled basketry (Dawson and Deetz 1965; Grant 1978; Hudson and Blackburn 1983; Shanks 2004:34). Twining primarily was used for undecorated utilitarian wares such as cradles, bait baskets (for clams and fish), seed beaters, and strainers, as well as for asphaltum-lined basketry water bottles (Brown and Vellanoweth 2014; Hudson and Blackburn 1982; Mohr and Sample 1955; Shanks 2010; Timbrook 2014). Coiled baskets were not only produced for use in a variety of food production and consumption tasks (e.g., gathering, cooking, serving, and storing), but also were manufactured in the form of tightly woven treasure baskets, women's hats, and commercial trade items (Shanks 2010:23–24). In addition, during the historical period, Chumash coiled baskets were fashioned into a variety of new styles that catered to European sensibilities, including Asian and European-influenced Chinese-style cups and saucers, wide-brimmed padres' hats, rectangular or oval boxes with fitted lids, and baskets with pedestal bases.

On technical grounds, historical Chumash coiled baskets are assigned to two distinct geographical categories: northern (Obispeño) and southern (Barbareño, Ineseño, and Ventureño). Differences between baskets from these two regions include the materials used, stitching technique, and rim finish (see Shanks 2010:27). For the purposes of this paper, we focus on the coiled baskets of the southern Chumash, to whom the overwhelming majority of surviving Chumash coiled baskets have been attributed. Southern Chumash coiled foundation materials include thinly-sliced juncus (Juncus balticus and Juncus textilis) and, less commonly, deergrass bundle foundations (Muhlenbergia rigens; Timbrook 2007). After the basket reached a diameter of about 3 inches, weavers gradually inserted whole juncus (Juncus textilis and possibly J. balticus) stems one at a time to form a three-rod foundation, continuing to replace rods as needed until the basket was complete. The sewing (weft) materials primarily consisted of split juncus (Juncus textilis) and sumac (Rhus aromatica) stems. The working direction was to the right; sewing stitches were non-interlocking; fag ends (the ends of the sewing strands) typically were clipped and/or pulled flush with the work face; and rims were plainly wrapped, tapering to an ending with very few back stitches at the coil finish (Dawson and Deetz 1965:202-203).

Primary design elements included (1) a principal band spaced its own width below the basket's rim, (2) symmetry of the design, (3) complex body design arrangements below the principal band, and (4) often, blocks of rim ticking (Dawson and Deetz 1965) (Fig. 2). Within the principal band, cascading and meandering elements, star crosses, block bands, and triangles are typically identified. Body-zone design elements can show a variety of diagonal, vertical, horizontal, zigzag, and cross-connecting arrangements that are relatively "light;" that is, not comprising large elements of an uninterrupted solid, dark color. Rim ticking (i.e., blocks of dark and



Figure 2. Chumash basket terminology. After Dawson and Deetz (1965:219).

light stitches alternating singly or in pairs) is a common feature. Optional extras include designs on the interior base, fillers within the main body-zone design, and fillers above the principal band.

ARCHAEOLOGICAL RECORD

As the recovery of basketry remains in archaeological contexts is rare, the antiquity of basketry production in southern California (both within and outside of the Chumash area) can be inferred primarily from manufacturing toolkits and other associated materials (Hector 2006). Hill (2017), for example, developed a predictive model for identifying coiled basketry production in the San Joaquin Valley. Using multiple lines of evidence (e.g., plant acquisition locations, processing locales, micro-ware on flaked stone tools), she identified clusters of women's basket manufacturing locations across the landscape. The discovery of tarring pebbles that were used to coat the interior of asphaltumlined basketry water bottles yields additional evidence of the activities necessary to produce baskets (Braje et al. 2005; Brown and Vellanoweth 2014). The presence of asphaltum-coated pebble clusters indicates that either locally-produced or imported baskets were tarred and/or repaired in discrete locales that were likely associated with women's activities (Brown 2016; Gamble 1983). During the mission period, archaeological evidence demonstrates that basketry production endured, despite the disruption and displacement of traditional subsistence strategies (e.g., Porter 1990). At missions San Buenaventura and La Purísima, for example, scholars have documented tarring pebbles and basketry impressions left behind on asphaltum linings within native living spaces (e.g., Gabel 1952; Rozaire 1976).

In some exceptional cases, well-preserved baskets or basket fragments, along with other perishable artifacts (e.g., whistles, bullroarers, and feather bands) have been found in cache caves in the Sierra Madre/San Rafael/ Cuyama interior sections of the Chumash region (Bryne et al. 2016; Elsasser and Heizer 1963; Grant 1964; Mohr and Sample 1955; Robinson 2017; Whitby 2012). Whitby (2012) studied 85 cache cave sites, highlighting different types of caching practices among the Chumash during the middle (600 B.C. to A.D. 1050) and mission (A.D. 1782 to 1833) periods. AMS dating of one coiled basket fragment from the James-Abels Collection (ID No. NA-CA-SBA-XX-4F-11) resulted in a post-1650 (cal A.D.) date, while two twined baskets produced much older dates of A.D. 382-538 (ID No. SBA-2004 360-21) and A.D. 970-1044 1 (ID No. SBA-1985 Basket No.3), respectively (Whitby 2012:410-412). Numerous other coiled baskets have been identified in cache cave sites that date to as early as A.D 772-942, with increasing numbers from A.D. 1400 onwards (D. Robinson, personal communication 2018).

In a recent study, Robinson (2017) developed a methodological approach that utilizes DeLanda's (2006) concept of capacity to better understand the value of material assemblages from four adjacent cache caves in the Emigdiano Chumash borderlands. To illustrate how a capacity analysis can lead to assemblage values, Robinson (2017:161-163) examined the spatial dimension of the caves in which the objects were cached and the different types of materials that were found in each one in order to determine the array of activities that occurred there and the time invested in making baskets. Interestingly, he found that baskets cached in Caves 3 and 4 had higher coiling densities, stitches per centimeter, and decorated fragments than baskets in Cave 1, suggesting a higher status among the people (including the weavers) who cached their materials there. Altogether, he suggests that these assemblages represent household and individual caches, rather than corporately-controlled storage locations. While baskets in such a quantity and condition are rarely preserved in the archaeological

record other than in cache cave settings, similar types of relational approaches can be applied to historical or ethnographic baskets, as in the case of the mission and post-mission baskets we discuss below.

MISSION-PERIOD BASKET WEAVERS

During the mission period (A.D. 1769-1833), Spanish colonists established 21 Franciscan missions along the coast of Alta California, primarily to convert local native peoples into loyal Spanish subjects but also to prevent the advancement of Russian interests coming from the north. The missions operated as key economic and political institutions that relied on conscripted labor, strict religious indoctrination, and indigenous relocation programs (Haas 2014; Hackel 2005; Lightfoot 2005; Milliken 1995). However, Native Californians that entered the mission system did not passively conform to European ways of life, nor were colonial practices accepted passively or uniformly across the landscape. These interactions produced conditions under which new identities emerged as a result of multiple agents taking part in the active transformation of culture (Deagan 1998; Ortiz 1995[1947]; van Dommelen 1998; Voss 2008). Recent scholarly research has revealed how native peoples filtered colonial practices through their own systems of meanings and values, and how everyday practices were reconfigured and negotiated in complex ways in a broad array of colonial contexts (e.g., Ferris et al. 2015; Liebmann and Murphy 2011; Panich 2013; Panich and Schneider 2014; Peelo 2011; Silliman 2009).

Within the missions in the Santa Barbara Channel region (missions San Buenaventura, Santa Bárbara, Santa Inés, and La Purísima), similar patterns of indigenous persistence and transformation have been identified. For example, Brown (2018) found that there was a reorganization of the soapstone industry inside missions San Buenaventura and La Purísima; the material was acquired from new sources, the emphasis changed to the production of bowls and *comales*, and more soapstone vessels showed evidence of remodification. Nonetheless, the continuation of both the use of soapstone for cooking and the display of traditional design elements on these objects—such as a series of Xs and Vs along the rim—illustrates that Chumash peoples actively adapted to and negotiated new colonial situations on their own terms.



Figure 3. Presentation baskets by (a) Maria Marta Zaputimeu, (Cat No. 1-22478); (b) Juana Basilia Sitmelelene, (Cat No. NA-CA-CH-4F-3); (c) Maria Sebastiana with missing bottom (no Cat No.). After Timbrook (2014).

The presence of numerous other types of local industries and artifacts (e.g., *Olivella biplicata* shell beads, shell pendants, asphaltum detritus, and local groundstone) found within mission spaces suggests that local peoples continued to pursue some aspects of traditional practices as well (see Deetz 1965; Gable 1952, Greenwood 1976).

Basketry production is another such tradition that endured. Although numerous Chumash women undoubtedly formed weaving communities throughout the mission period and remain as yet unidentified, three weavers are known to us because they wove their names into the baskets themselves (Fig. 3). These women identified themselves as María Marta *Zaputimeu*, Juana Basilia *Sitmelelene*, and María Sebastiana *Suatimehue*. Mission records offer some limited background on the lives of these women (see Huntington Library 2006; Timbrook 2014:51–52):

María Marta *Zaputimeu* (also spelled *Saputimehue*) came from the village of *S'omis* (namesake of the present town of Somis) and was baptized into Mission San Buenaventura in 1788 at about the age of twenty-one (Mission San Buenaventura 1782–1808: No 363). She left behind no children when she died in 1830.

Juana Basilia *Sitmelelene* was born about 1782 in the ranchería of *Sumuawawa*, located in the Santa Monica Mountains, and was baptized at Mission San Buenaventura in 1806 at about the age of twenty-four (Mission San Buenaventura 1782–1808: No 2154). She married a man from the Chumash village of *Kimichaq*, located near modern-day Moorpark. She had one child but no grandchildren, and died in 1830.

María Sebastiana *Suatimehue* came from *Mupu* village near present-day Santa Paula and was baptized at Mission San Buenaventura in 1807 at the age of thirty-six (Mission San Buenaventura 1782–1808: No 2428). She had no children and died in 1815.

Only three other baskets similar to those produced by these three weavers are thus far known, together making up the "six Chumash presentation baskets" (Timbrook 2014). Four of these baskets were originally identified in Mexico City and eventually made their way into museum collections. The circumstances surrounding the discovery of the other two (one in a museum and the other in a private collection) are currently in private ownership. These baskets are referred to as "presentation" baskets because one of them features an inscription indicating that it was intended as a gift (Timbrook et al. 2010:213). (Two other baskets with inscriptions are known: "Soi de Catarina Ortega" appears twice on an oval tray with a ring-like pedestal base [NMAI 25/1], made by an unknown weaver. It was probably made as a wedding gift for the granddaughter of the first commandant of the Santa Barbara Presidio, when she married José Carrillo in 1829. The other rectangular basketry box with the name

Table 1

"PRESENTATION" BASKET METRICS (REPORTED IN TIMBROOK 2014)

Basket ID	Location	Weaver	Stitches ^a	Coils ^b	Diameter	Height
1-22478	PHM	Maria Marta <i>Zaputimeu</i>	320 per inch²/126 per cm.²	8 per inch/3 per cm.	16.25" (41.3 cm.)	6.5" (16.5 cm.)
NA-CA-CH-4F-3	SBMHN	Juana Basilia <i>Sitmelelene</i>	250 per inch²/98 per cm.²	8 per inch/3 per cm.	24" (61 cm.)	4" (10.2 cm.)
2011.22.45	SBMNH	Attributed to Juana Basilia <i>Sitmelelene</i>	280 per inch²/110 per cm.²	9 per inch/3.5 per cm.	19" (48.3 cm.)	3.25" (8.3 cm.)
n/a	PC	Maria Sebastiana <i>Suatimehue</i>	280 per inch²/110 per cm.²	10 per inch/4 per cm.	15" (38 cm.)	4.5" (11.4 cm.)
GCE 0001	MFM	unknown	310 per inch²/122 per cm.²	12 per inch/4.7 per cm.	12.25" (31.1 cm.)	4" (10.2 cm.)
n/a	PC	unknown	338 per inch²/133per cm.²	14 per inch/5.5 per cm.	19.5" (47 cm.)	7" (17.8 cm.)

PHM= Phoebe A. Hearst Museum of Anthropology; SBMNH=Santa Barbara Museum of Natural History; NMAI=National Museum of the American Indian; PC=Private Collection; MFM=Museo Franz Mayer, Mexico City; MET=Metropolitan Museum of Art

^aValue averaged when multiple stitches reported for one basket.

^bApproximate value based on photo images.

"Carmelita" woven into the lid has also been identified. This basket is in the Autry Museum collection and dates to ca. 1843. [Cat. No. 5.G. 147].). Though some stylistic similarities in choice and execution of design patterns suggest that these baskets may have been made by the same women whose names are known, it is possible that there were other weavers, thus far anonymous, who produced "presentation" baskets of this quality.

Aside from the inscriptions, these "presentation" baskets are extraordinary in several ways. First, their weavers wove heraldic design elements into them that are identical to those found on Spanish colonial coins in circulation between A.D. 1732 and 1772 (pillar dollar) and A.D. 1772 and 1823 (portrait [or bust] dollar). Second, they are all extremely finely woven, with 200-360 stitches per square inch (80-142 stitches per square cm.) (see Dawson and Deetz 1965: Plate 14; Timbrook 2014; Table 1). Third, apart from the inclusion of the Spanish colonial motifs, the weavers worked within traditional Chumash basketry traditions in their use of native plant materials, design standards, and manufacturing techniques. Each basket has a working direction to the right with a work face on the inside, and all are sewn into a three-rod juncus foundation with finely-split sumac and black or darkbrown dyed juncus; however, some baskets, such as the basket constructed by Juana Basilia Sitmelelene, located at the Santa Barbara Museum of Natural History, may have been partly constructed with very fine deergrass. Each of the baskets contains most or all of the following features: a principal band, rim ticks, and traditional

Chumash body-zone design elements including V-shaped, X-like, and diamond motifs, checkerboard bands, and narrow black and truncated triangles (see also Chavez 2017:113–125).

POST-MISSION-PERIOD BASKET WEAVERS

Between the secularization of the missions in A.D. 1833. when mission lands were removed from Franciscan control, and the end of the nineteenth century, vast changes occurred within the Chumash region. These changes resulted from such historical disruptions and displacements as the Mexican-American War, the Gold Rush, and the establishment of the Southern Pacific Railroad that opened the once secluded Ventura/ Santa Barbara area to greater Los Angeles. Many of the Chumash people who had lived at Cieneguitas, San Fernando, Saticoy, and other post-secularization communities moved to the Ventura City area (McLendon and Johnson 1999:355). Federal census records, contemporary court records, newspaper articles, and John P. Harrington's ethnographic fieldnotes document the active Chumash community that persevered there well into the early twentieth century (Johnson 1993).

Beginning in the 1880s, the Arts and Crafts movement took shape across the nation, and growing efforts were made to define a distinctly American identity through art that promoted "honest" design and natural materials (Cumming 1991). The resulting nostalgia for handmade items brought Native California



Figure 4. Petra Pico (left), Donaciana Salazar (middle), Candelaria Valenzuela (right). Cassidy Family Papers, Bancroft Library.

basket weaving front and center in the world of affluent art dealers and collectors. These collectors were not only interested in displaying their prized baskets in specialized showcase rooms, but also, they took interest in the individuals who wove the baskets. Some collectors recorded the name of the individual weaver on a tag kept with the basket, occasionally remarking that she was "the last basket weaver of her tribe." The native weavers sought after by collectors became well-known within their local communities, often catching the attention of linguistethnographer John P. Harrington, other anthropologists, and photographer Edward S. Curtis as well (however, Curtis did not take any photos of Chumash weavers).

Three post-mission-period Chumash weavers, Petra Pico, Donaciana Salazar, and Candelaria Valenzuela, are known from tags or notes associated with baskets that were eventually accessioned into museum collections (Fig. 4). Historical and ethnographic records provide some insight into the life histories of these women (see also Johnson 1994:59–63):

Petra Pico was born in 1834 at Mission San Buenaventura to mother Ysidra (1805–1879) and father Peregrino María *papumiahuit* (1795–1853), who were also born at the mission (Johnson 1994:60). Petra married three times during her life. In her first marriage to Conrado, she became the sister-in-law to Donaciana (discussed below) and had two daughters, one of whom had two daughters herself. Petra raised these grandchildren later in her life. Following Conrado's passing, Petra married Lucas García of Santa Barbara in 1866. Early Ventura County property maps and the 1898 County Directory indicate that after Petra's third marriage to Simplicio Pico in 1875, the couple lived on Spruce Street in downtown Ventura (Foster 2008). Ethnographer John P. Harrington recorded that another Chumash woman said that Petra left her coils of juncus to dye in the mud for at least 15 days (Craig 1966:209). Although she was renowned for weaving traditional baskets, Fernando Librado *kitsepawit* said that Petra made certain baskets in a "new mode" (Harrington 1986). Petra died in 1902.

Donaciana Salazar was born in 1836 to mother Tomasa de Aquino and father José Calasanz silquichet, and grew up in a ranchería adjacent to Mission San Buenaventura (Johnson 1994:59). Her father, born on Santa Cruz Island and brought to Mission San Buenaventura in 1814 when he was one year old, later became a vaquero for the mission. In 1852, Donaciana married Norberto skit'ima whose parents had come from Chumash villages in the Santa Paula region. Fernando Librado kitsepawit told John P. Harrington that Chumash dances were performed at the wedding of Donaciana and that she was one of the last to know the Swordfish Dance (Hudson 1979:33). Donaciana's sister, Magdalena, also was an accomplished basket weaver (Hudson and Blackburn 1987:238; McLendon and Johnson 1999:205). Donaciana worked under the famous photographer J. C. Brewster, who photographed her and Petra with some of their baskets (Fig. 5). She died in 1905.

Candelaria (Ríos) Valenzuela was born on Sespe Creek about 1847 and later moved to Saticov with her family (Johnson 1994:62). Her father, Pedro Antonio chuyuy, and her mother Euqueria, grew up in El Escorpión, a town that appears to have had both Chumash and Fernandeño speakers. In 1865, Candelaria wed José Epifacio del Refugio Ríos at Mission San Buenaventura and had five children between 1865 and 1881. After separating from her husband, Candelaria moved to Ventura and roomed with Petra Pico in her house on Spring Street (Johnson 1994:63). She later had two children with José Olivas between 1885 and 1888. During her last marriage to José Valenzuela, Candelaria came to know John P. Harrington, who consulted with her on numerous occasions about basket weaving techniques and the Chumash language (see Craig 1966). In 1915, when she was cooking on the Peirano Ranch, Candelaria's clothing caught fire and she died from the burns she received (Blackburn 1963).

Altogether, 10 baskets associated with these three weavers have been identified within the ethnographic collections at the Smithsonian Institution National Museum of Natural History, the Ventura County Museum, and the Autry Museum of the American West (Brown and Timbrook 2015). Many other baskets have also been attributed to these weavers, but here we focus only on those that were documented—with



Figure 5. Petra Pico and Donaciana Salazar with their baskets, ca. 1890. Photo courtesy Museum of Ventura County, pn 5804.

the weaver's name written on an accompanying tag or catalog card—when it was accessioned into the respective museum collection. However, it is important to acknowledge that these baskets, although accessioned into museums and with designated makers, may have been attributed to—not truly documented as having been made by—these weavers before entering a curation facility. While there are distinct individual differences between weavers' styles, we focus our discussion here on broader community style.

First, compared with the mission period baskets, the post-mission baskets are less-finely woven; their stitches are much wider, ranging between 60–122 stitches per square inch (24–48 stitches per square cm.; Fig. 6, Table 2; see also Dawson and Deetz 1965: Plate 6a, Plate 13c & 13d, Plate 19d). A one-tailed t test indicates that



Figure 6. Baskets produced by Petra Pico, Donaciana Salazar, Candelaria Valenzuela: (a) Petra Pico- Cat. No. E313084-0 (National Museum of Natural History); (b) Petra Pico- Cat. No. E313092-0 (National Museum of Natural History); (c) Petra Pico- Cat. No. 2011.22.45 (Autry Museum of the American West); (d) Donaciana Salazar- Cat No. E328009-0 (National Museum of Natural History) (e) Donaciana Salazar- Cat No. E313091-0 (National Museum of Natural History); (f) Candelaria Valenzuela- Cat. No. 1957-2.1 (Ventura County Museum); (g) Candelaria Valenzuela- Cat No. 491.G.2099 (Autry Museum of the American West); (h) Cat No. 1984-30.2 (Ventura County Museum); (i) Candelaria Valenzuela- Cat No. E313020-0 (National Museum of Natural History); (j) Candelaria Valenzuela- Cat No. 1995-42.1 (Ventura County Museum). See Table 2 for reference.

there is a statistically-significant difference between the two groups (t=16.815, p=.00001; p<.01). Second, these weavers all fashioned a European-influenced pedestal on the bottom of at least one of their baskets² (Fig 7), and some had incorporated new designs such as the "Queen Charlotte's crown"³ ("Petra's Basket," Cat. No. E313084-0, Smithsonian Institution National Museum of Natural History), as well as farm animals (Candelaria's

basket, Cat. No. 1957-2.1, Ventura County Museum). Finally, as with the mission-period weavers, all of these weavers worked within existing Chumash basketry conventions, including the use of native plant materials, design standards, and weaving techniques. Each basket has a working direction to the right, with a work face on the inside, and is sewn over a three-rod juncus foundation with finely-split sumac, natural undyed juncus, and black

Basket ID	Location	Weaver	S titches ^a	Coils ^b	Diameter	Height
E313084-0	NMNH	Petra Pico	67 per inch²/26 per cm.²	6 per inch/2.5 per cm.	10.5" (26.8 cm.)	4.9" (12.5 cm.)
E313092-0	NMNH	Petra Pico	60 per inch²/23 per cm.²	5 per inch/2 per cm.	14.5" (37 cm.)	6" (15.2 cm.)
2011.22.45	AMAW	Petra Pico	67 per inch²/26 per cm.²	6 per inch/2.5 per cm.	12.5" (31.5 cm.)	6" (15.5 cm.)
E328009-0	NMNH	Donaciana Salazar	67 per inch²/26 per cm.²	6 per inch/2.5 per cm.	12" (30.5 cm.)	3.8" (9.8 cm.)
E313091-0	NMNH	Donaciana Salazar	65 per inch²/25.5 per cm.²	6 per inch/2.5 per cm.	8.6" (22 cm.)	3.5" (8.9 cm.)
1957-2.1	VCM	Candelaria Valenzuela	92 per inch²/36 per cm.²	8 per inch/3 per cm.	11" (28 cm.)	3.9" (10 cm.)
491.G.2099	AMAW	Candelaria Valenzuela	67 per inch²/26 per cm.²	6 per inch/2.5 per cm.	10.6" (27 cm.)	1.1" (3 cm.)
1984-30.2	VCM	Candelaria Valenzuela	92 per inch²/36 per cm.²	7 per inch/2.7 per cm.	9.8" (25 cm.)	2.5" (6 cm.)
E313020-0	NMNH	Candelaria Valenzuela	95 per inch²/37 per cm.²	7 per inch/2.7 per cm.	10" (25.5 cm.)	1.4" (3.5 cm.)
1995-42.1	VCM	Candelaria Valenzuela	122 per inch²/48 per cm.²	9 per inch/3.5 per cm.	5.9" (15 cm.)	5.9" (15 cm.)

Table 2

NMNH=National Museum of Natural History; AMAW=Autry Museum of the American West; VCM=Ventura County Museum

^aAll stitches and coils measured from the first coil below the rim.

^bApproximate value based on photo images.

or dark-brown dyed juncus. Each basket contains most or all of the following features: a principal band, rim ticks, and traditional body-zone design elements, including horizontal design bands and truncated triangles in the principal band, and contiguous triangles. Nonetheless, these weavers were innovative and willing to modify traditional layouts, design standards, and colors, as is the case with Candelaria's baskets, which include unusually large solid black triangles (Cat. No. 313020, Smithsonian Institution National Museum of Natural History) and red-dyed sumac sewing strands (Cat. No. 1995-42.1, Ventura County Museum).

COMMUNITIES OF PRACTICE

The two basket weaving communities that formed during the mission and post-mission periods followed traditional Chumash design standards and materials; however, there were distinct differences between the two groups of weavers, most notably in the number of stitches per square inch and the incorporation of different design elements. In order to understand these stylistic variations and technical choices, it is important to consider the collaborative learning processes and habitual behaviors of the weavers that produced these differences.

María Marta Zaputimeu, Juana Basilia Sitmelelene, and María Sebastiana Suatimehue all wove their names

into their baskets, a practice that was unique in Native California basketry at the time. That these three women did so shows the high regard in which their skill and artistic abilities were held by the mission-era authorities who commissioned them to make these baskets. While the weavers likely would not have created the inscriptions nor reproduced the coin designs of their own volition, they managed to meet those requests while using the same plant materials, weaving techniques, and design layout as in Chumash baskets made by their ancestors. The similarity in weaving styles among this group of weavers suggests that they learned to weave in this particular way through apprenticeship and/or by weaving together. While the inclusion of Spanish heraldic stylistic motifs was likely done to fulfill requests or desires of the commissioners, the actual weaving was a motor-skilldependent activity (unlike design choice), learned and habituated early and unlikely to be consciously changed. Juana Basilia and fellow weaver María Sebastiana came to the mission within a year of each other (1806 and 1807, respectively) and they may have woven their baskets together. María Marta was the only one living at Mission San Buenaventura in 1793, when Archibald Menzies, the naturalist and surgeon on the expedition led by George Vancouver in Santa Barbara, penned his description of baskets "with the arms of Spain" (see Menzies 1924:326). María Marta had come to the mission



Figure 7. Basket with pedestal made by Donaciana Salazar, Cat No. E313091. Photo by Kaitlin Brown, National Museum of Natural History Museum Support Center.

much earlier than the other weavers; it is possible that she may have taught the other women how to weave in this fashion as well. Nevertheless, the community of three participating weavers identified here was probably much larger than implied. As Timbrook (2014:56) has observed, "could a single weaver work tens of thousands of thread-fine stitches over the course of days, months and years to create as many as three of these extraordinary presentation baskets in her lifetime?" It is likely that there may have been more Chumash weavers making these baskets within a broader community of practice and not just the three whose names are known.

Petra Pico, Donaciana Salazar, and Candelaria (Ríos) Valenzuela also wove their baskets in a very similar fashion. Indeed, Craig (1966:212) has commented on the stylistic and technical similarities between Petra's and Candelaria's baskets (similarities that also extend to Donaciana's baskets). Although their baskets were used for similar non-utilitarian purposes and were made for sale or given as gifts like those of the mission-period group, their weaving technique was strikingly different from that seen in earlier baskets. Each woman fashioned at least one basket with a pedestal on the bottom, and used thicker foundation rods and wider stitches than the earlier weavers. Although these weavers were innovative and were creating new forms of baskets, they still managed to employ traditional Chumash basketry design standards and materials. Ethnographic and historical documents demonstrate that these basket weavers were intimately linked, being related through marriage or recorded as living in the same house. As with the mission-period basket weavers, these three weavers were also likely held in some esteem in their community, as collectors (e.g., Dr. A. J. Comstock, a physician who collected baskets in Ventura in the late nineteenth century), photographers (e.g., J. C. Brewster), and anthropologists (e.g., John P. Harrington) actively sought out their baskets. That these women were celebrated within their community is also shown by the fact that they were recognized by other Chumash people for their traditional knowledge of Chumash languages, dances, and songs (Craig 1966; Hudson 1979). Numerous other baskets in museums around the world are fashioned in the same way as these weavers' baskets, suggesting that the community of Chumash weavers during the postmission period was also much larger.

The commissioning and selling of these baskets in the mission and post-mission periods likely provided these women with a source of income that contributed to for their daily living expenses, food, and shelter, and may have facilitated their achievement of higher social statuses. For example, the mission period weavers may have been granted more autonomy, and have been able to leave the mission grounds to collect basketry materials; they also likely had more prestige than other native women living at Mission San Buenaventura, as they were granted privileges like not having to do other kinds of mission work that was required of most Native women. The post-mission-period women were likely able to support themselves with a steady income from the sale of their baskets as well, an income that may have supported them when their families had no other breadwinner. The formation of these basketweaving communities positioned these women to negotiate their native identities on their terms. This negotiation of individual and group identity can be seen in an examination of the baskets themselves-deeply woven into them are new forms of Chumash representation that were explored in novel but nonetheless meaningful ways through time. The differences between weaving styles during these two periods suggest that basket making persevered not so much in a context of adherence to strict traditional standards, but rather one of maintaining and participating in communities of practice, which reinforced traditional identities but also left room for innovation. The fact that these baskets are so similar to each other at a particular moment in time (i.e., the post-mission period), but distinct from those of the preceding period (i.e., the mission period), likely indicates that these women shared a set of values generated from participation in communities of practice that drew on past notions of traditional Chumash identity while negotiating a particular (reconfigured) colonial present. These communities of women made and re-made their native identities as new repertoires of practice were performed at distinct moments in time and catered to distinct colonial sensibilities. That these women came together to learn, teach, and participate in weaving illustrates the importance of a community of practice in social identity formation and persistent craft traditions.

The processes of community formation present in women's basket weaving, however, are not just a product of post-contact times. The formation of these communities may also be identifiable in studies of the archaeological record, through the identification of associated toolkits involved with basket making, such as different sizes of pebbles in clusters of tarring pebbles, sizes in bone awls, or use-wear analysis on flaked-stone tools. Similarities and differences in these types of artifacts through time and across space can imply learning outcomes involving kinship systems and gender-based knowledge production, which were among the bases of social identity in pre-colonial societies (see Crown 2001; Sassaman and Rudolphi 2001). Even in well preserved baskets, like those found in cache caves in the Chumash region, identifying differences in the chain of basket production-such as

the raw materials used, weaving technique, decoration, form, and function of baskets between assemblages—can illuminate different types of learning processes between kin groups and even aid in understanding different types of postmarital residence.

LEGACIES OF CULTURAL SURVIVAL

It is important to acknowledge that the baskets discussed in this paper are not just products of the past; they also are intimately linked with native identity in the present, and remain as legacies of women's perseverance during and after the mission period. The baskets studied here strongly resonate with Chumash descendants today. In the case of María Marta Sitmelelene's basket, Nicolasa Sandoval (Santa Ynez Band of Chumash Indians) commented that "Sitmelelene sings to me a song of resilience through her basket. She lives" (Timbrook et al. 2010:214). In contemplating Juana Basilia's basket, Ernestine Ygnacio-DeSoto (Barbareño Chumash) explained, "...perhaps in developing her artistry, Sitmelelene was able to be relieved of her daily mission work. Also, continuing her craft as a weaver would have allowed her to return to traditional gathering places and practice traditional rituals" (Timbrook et al. 2010:213).

However, it is not just these baskets themselves that are resilient; the actual processes of basket production (from the gathering to the weaving) continue to act as important elements of native identity-making and persistence. Although the last post-mission-period basket weavers had died by 1915, their knowledge was not lost. As a California Arts Council Artist-in-Residence in the 1980s, Patricia Anna Campbell researched John P. Harrington's notes from his interviews with Candelaria Valenzuela, analyzed Chumash baskets in museum collections, and conducted hands-on experimentation to figure out how the baskets were made. As a result of this research, she was then able to teach others to weave Chumash baskets in the traditional way. Largely because of Campbell's efforts to revitalize the practice, many native (and non-native) community members now come together to weave and participate in learning and sharing Chumash basket weaving techniques. At the Santa Ynez Chumash Reservation, basket weaving classes are being led by Abe Sanchez (Purépecha), who learned Southern California weaving techniques from Justin

Farmer (Diegueño). Sanchez has refined his weaving skills in order to learn and teach Chumash methods, and his enthusiasm inspires new generations of Chumash weavers. They are all links in the chain of transmission of cultural knowledge.

Like the work of generations of women who wove before them, some Chumash baskets take on different forms and styles, but the process of weaving remains deeply interwoven with the ancestral past and the use of traditional materials. Samantha Sandoval (Barbareño Band of Chumash Indians), for example, experiments with new design elements, such as an owl figure woven into the basket, while she uses materials from Maria Ygnacio Creek in Santa Barbara County, a creek named after her fourth-generation great-grandmother. She has helped to transplant and grow juncus from the creek for anyone who needs it. As she explains:

It makes it special to basket weave with a plant that is native to Santa Barbara and comes from the place that is named after my fourth great-grandmother (Maria Ignacia). And what is more special is I helped to plant and grow it. The juncus will be there for anyone who needs it; for my family and friends. We need more places to gather juncus because many of those places are gone or limited. I hope to continue to teach my family to basket weave. I am very proud that I am able to do this and keep the culture and tradition alive. [S. Sandoval, personal communication 2018].

Weaving is an essential process that brings together material discourse, practice, and memory in other native communities as well. Native Californians from across the state express similar perspectives on the importance of weaving and connecting with their ancestral roots. According to Mono weaver Norma Turner, baskets "are a part of the family. They're just like one of the children. And these baskets are alive. These baskets, just like the rocks are alive. These materials that we make baskets with are alive. There's a connection between the ancestors, the people, the basket makers, and these baskets" (Margolin and Montijo 1995:91). Linda Yamane stated that she had to teach herself how to weave, when traditional Ohlone basket makers of the San Francisco Bay area had been gone for over a century, by using surviving examples of baskets in museums and information in archives. According to Yamane, "weaving baskets is a way of bringing honor and respect to our ancestors and of keeping our culture alive" (Yamane 2015:115).

The practice of weaving a basket remains a vital process in many native women's lives, and so does the learning and sharing of knowledge from one generation to the next. Organizations such as the California Indian Basketweavers Association (CIBA) support the growing number of contemporary native weavers and hold annual meetings to learn and share traditional basket weaving knowledge. The Alliance for California Traditional Arts (ACTA) offers an apprenticeship program that allows a master basket weaver to teach the processes of basket making. Jennifer Bates, a Central Sierra Mewuk (Miwok) weaver and 2017-2018 ACTA master artist, emphasizes that teaching an apprentice how to weave is only a small part of the process. In a recent public program highlighting weaving communities (Brown et al. 2017), Bates explained that every aspect of the process is important in teaching about basket weaving, from cutting back the redbud bush and returning to gather the newly grown shoots, to splitting and cleaning the material, to putting it away to let it season. When Bates teaches, she asks students for a full year of dedication, and emphasizes that once one learns, it is important to teach others. North Fork Mono artist and cultural educator Lois Bohna further informs us that habitats containing basket weaving materials are being lost, and that it is important to fight to keep these areas preserved and free of pesticides. All in all, these basket weavers continue to thrive and share knowledge, preserve plant habitats and gathering rights, make their native identities known, and persist into the present day.

CONCLUSIONS

This study documents two distinct communities of basket weavers who lived in Ventura during the mission and post-mission periods. In tracing basket weaving techniques diachronically from examples in museum collections, we found both similarities and differences between the groups. In the mission period, Chumash baskets continued to have a working direction to the right; weavers made their baskets from a coiled foundation of three-rod juncus with juncus and sumac sewing strands; and the weavers also generally adhered to some traditional design standards in terms of ornamentation and shape. However, in the post-mission period, basket weaving techniques shifted to include weaving much wider strands, and the baskets displayed new design layouts. However, the weavers continued the coiling direction to the right and continued to use traditional Chumash design elements and materials. They may have even collected their materials from traditional and/ or meaningful places, as contemporary Chumash basket weaver Samantha Sandoval still does today. Indeed, traditional locations for growing and managing basketry materials likely were maintained throughout the mission and post-mission periods. In his seminal study of the place names of the White Mountain Apache in Arizona, Basso (1996:57) found that "places and their meanings are continually woven into the fabric of social life, anchoring it to features of the landscape and blanketing it with layers of significance that few can fail to appreciate." Gathering plant materials for basket making in California is similarly undertaken in a context of deep cultural meanings, both historically and today.

In order to understand diachronic changes in weaving techniques and styles, we have considered how basket weaving practices are learned and shared within 'communities of practice.' When weaving baskets, the two groups of women, during both the mission and postmission periods, catered to changing colonial sensibilities with respect to certain stylistic motifs (heraldic designs and pedestal forms, respectively), but did so in ways that reflected habituated knowledge learned and developed within specific communities of practice. Even the most conservative skills (e.g., weaving techniques), became subject to change as new weaving communities emerged in the post-mission era—these women both reproduced *and* transformed themselves throughout the weaving process in their particular historical moments in time.

Ethnographic and historical accounts help us to piece together the life histories of the weavers and the communities they formed. Surely there were more weavers than just the six individuals identified here who also participated within these communities of practice and kept the traditions alive. It is enticing to think of the many other individuals who likely also wove baskets following similar conventions but whose names are unknown. The baskets produced by all these weavers, throughout the mission and post-mission periods, serve as links between their living descendants and the ancestors in the past. Although the recovery of archaeological baskets like the ones discussed here is rare, archaeologists can nonetheless search for other communities of practice by investigating associated toolkits and shifting their analytical focus to nondiscursive production steps and traditions embodied in the process. Finally, incorporating the voices of contemporary Native California basket weavers lends salience to the importance of learning, teaching, and community in basket weaving traditions, past and present.

NOTES

¹Historical tribal names designated by the Spanish; most Native Californians self-identify in terms of their native languages; e.g., Samala.

²The pedestal base was also made during mission times, as were other unusual shapes (oval trays, rectangular boxes, lids, etc.) as a response to colonial consumer demand.

³Records from the original collector, Dr. A. J. Comstock, state that Petra called the design "Isabella's Crown" or "Queen Isabella's Crown." A later owner mistakenly wrote the name as "Queen Charlotte's Crown," and that handwritten label has sometimes been misread as "Cross" rather than "Crown."

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