Cosoy: Birthplace of New California

Geoffrey Mogilner

“The search for truth takes you where the evidence leads you, even if, at first, you don’t want to go there,” Bart D. Ehrman

A traditional story of the founding of New California credits Russian expansion, the Portolá Expedition, and the Franciscan missions as factors in its motivation and success. There is, however, another essential component. Without the Kumeyaay people at Cosoy sharing their drinking water with the expedition, Spanish settlement would probably have failed. In early 1769, the government of New Spain, working with the Franciscan Order, sent a four part expedition to San Diego Bay and Monterey Bay. Their purpose was to take military control of the territory between the ports and convert the native population to Catholic farmers and tradespeople. This was the Portolá Expedition and they called the territory New California.¹

When the first two packetboats of the expedition, the San Antonio and the San Carlos, reached San Diego Bay, those

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aboard were deathly ill and in desperate need of good drinking water. On May 1, 1769, Miguel Costansó, the military engineer for the expedition, went on reconnaissance for a source of drinking water. Costansó was guided by people from the Kumeyaay settlement, called Cosoy, and wrote about their shelters, defensive enclosure, and water source. The inhabitants of Cosoy, having no idea what the Spaniards were planning for them, greeted the expedition with open arms and shared their own source of drinking water with these strangely dressed and ill strangers.

It is assumed that the Spaniards could control events because of their superior firepower. Their lack of good drinking water and a contagious disease in their ranks, however, shifted the balance of control and threatened the expedition’s survival. The expedition’s response was to occupy Cosoy’s water source and defensive enclosure for their first permanent camp in New California. These actions have not previously been identified in the history of the founding of New California, and the essential contributions of the people of Cosoy to the founding of New California have been unrecognized. This article will explain some reasons why the Portolá Expedition occupied parts of Cosoy on May 15, 1769. Over the next 250 years the exact locations of Cosoy’s shelters and water source were forgotten. A 1769 letter by Costansó—first translated into English in 1975—gave new, explicit information locating Cosoy’s water source. Additionally, Lt. George Derby’s Field Map of 1853 documenting a water feature at Presidio Hill has come to light. Analysis of this new information enables us to document the locations of Cosoy’s water source and shelters as described by Costansó. Cosoy is defined as the Kumeyaay shelters, defensive enclosure, and water source described by Costansó on May 1, 1769. Kosa’aay in this article refers to the ranchería of which these features were only a very small part. The period of this study spans April to July 1769, just after the San Diego Mission was founded.

Cosoy’s Water Source

The Portolá Expedition was financed by the Spanish government and the Church and was planned in great detail by José de Gálvez, the Inspector General for
the Viceroyalty of New Spain. As it happened, the lack of good drinking water for the men at the Port of San Diego and an infectious disease almost aborted the expedition. When the expedition’s packetboat *San Carlos* entered the Port of San Diego on April 29, 1769, she met the packet *San Antonio* already inside the port and anchored at Point Gujjarros in what is today Ballast Point.

The commanders of the expedition had orders to establish a garrison and mission at Monterey Bay and on the way there to establish a garrison and mission at the Port of San Diego. The immediate need, however, was to find drinking water for the men. Engineer Costansó was in charge of selecting a proper garrison site that included enough fresh water to provision the men, horses, and mules for the two land divisions coming from the south. Fernando de Rivera y Moncada’s first overland division included a pack train of 189 mules and left from Mission San Fernando Velicatá in Mexico. The second land division under Gaspar de Portolá brought an additional 170 mules.

In his *Narrative*, Costansó told the story of his exploration for good drinking water on May 1:

The first business was to seek a place to get water from which to supply and fill the barrels with good water for the use of the men.... Following the west shore of the Port... they discovered a short distance away a group of Indians armed with bows and arrows...when asked by signs where the watering-place was the Indians pointed to a grove at a considerable distance to the north-east.... They walked for some three leagues until

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*Excerpt from The Costansó Narrative of the Portolá Expedition. Ray Brandes, ed. Facsimile of the original in the Los Angeles Public Library.*
they arrived on the banks of a river hemmed in on either bank by a low ridge of very leafy willows and cottonwoods … Within a musket-shot from the river, outside the wood, they discovered a town or village of the same Indians who were guiding our men…. The Spaniards entered the town, which was composed of from thirty to forty families. On one side of it there was observed an enclosure made of branches and trunks of trees [defensive enclosure], in which they explained, they took refuge to defend themselves against the attacks of their enemies …. Having examined the watering-place the Spaniards returned on board the vessels.9

Costansó called this spring a “watering-place” because it was apparently sufficient for the entire expedition.

Vicente Vila, Sailing Master First Class, was in charge of the naval divisions of the Expedition and was captain of the Packet San Carlos. Lieutenant Pedro Fages, with his 25 Catalanian volunteers, cartographer/engineer Miguel Costansó, and surgeon Pedro Prat sailed with him. A different version of this search for
water is recorded by Vila in his journal, in which he wrote that “families, were scattered along the stream in little shelters, and that they were very friendly and tractable.”10 It was an act of kindness for the Kumeyaay of Cosoy to share their source of good drinking water with the expedition strangers. Without this help from the people of Cosoy, the Spaniards could have suffered more fatalities and would probably never have found this spring because it did not empty into the bay or the river. This source of good drinking water was over six miles from the anchorage at Ballast Point. Furthermore, almost all Spanish soldiers were weakened by disease and needed to find a shorter route in order to obtain the water with less exertion. As a result, the Spaniards moved the ships with the sick on board from Ballast Point closer to the watering-place.

During this process, Costansó explained moving the packets to the east side of the bay:

[The vessels…were at a considerable distance from the lagoon into which the river empties, their captains, Don Vicente Vila and Don Juan Perez, resolved to come as close as possible [to the lagoon] in order to lessen the work of the men in handling the launches. This duty was performed with great toil, as from day to day the number of the sick was growing, while those who were most seriously ill died, and the hardship of the few who were still able to stand on their feet was increased.11

The re-anchoring of the packets was accomplished by May 5 and, by May 8, a temporary hospital tent was erected on a small hill at the east side of the bay. For two weeks thereafter, the Spaniards were kept busy caring for the sick and burying their dead. The first overland division finally arrived on May 14.

Historian David J. Weber wrote that the Spanish soldiers thought of their discoveries as military secrets. “Eager to protect its New World discoveries from European rivals, Spain regarded the discoveries of its explorers as state secrets. New Pilots for example, took an oath in the name of the Holy Trinity never to alienate their charts to foreigners.”12 In light of the secrecy explained by Weber, there are four instances why Cosoy’s water source was not obscured. First, if the descriptions of native clothing, game, birds, fish, raft, and similar items were removed from Costansó’s exploration for a water source, then the identification of the watering-place would be revealed. Such superfluous descriptions, it may be interpreted, may have been one way of obscuring the spring’s location in order to ward off encroaching foreign competitors.

Second, the printing of Costansó’s Narrative may have been suppressed. It is
not known when the book actually appeared, because the date of publication is not given either on the title page or in the body of the work. Robert Greenhow [1800-1854] suggests that the book “was published at Mexico in 1771, and immediately suppressed by the government.”\textsuperscript{13} It is speculated that the \textit{Narrative} may have contained information that could be useful to non-Spanish navigators.

Third, Vicente Vila’s description of the watering-place’s discovery could contribute to the thesis that the water source’s location was intentionally kept
secret. Vila merely notes “a river of excellent water” and does not mention the watering-place itself.

And finally, Costansó had two descriptions of the move on May 15 to the watering-place. José de Cañizares was a pilot’s mate in the first land expedition. He was charged by Visitador General José de Gálvez to write a diary and take astronomical observations of the route between the mission of San Fernando Velicatá (Baja California) and San Diego (New California) in the year 1769. On May 14, official cosmographer Cañizares arrived at San Diego with Fernando de Rivera y Moncada. Costansó’s May **Narrative** documents the “watering-place.” But, after meeting Cañizares, Costansó’s **Narrative** of May 15 treats the watering-place as a state secret and does not mention it. Instead Costansó only documents moving the hospital and not the camp. Cañizares’ journal for May 15, although complete in other details, likewise does not mention the watering-place. Costansó explains in detail the expedition’s May 15 move to the “water source” in his June 28 letter to his commander, Inspector General José de Gálvez. To the Portolá Expedition, this watering-place was critical for establishing their base at San Diego Bay, and its existence was treated as a military secret.

**The contagious disease**

The Portolá Expedition at San Diego Bay was impacted by disease, eventually killing over 60 of its members. Documents of the time identify the disease as scurvy, noting that it was infectious, even though scurvy is not contagious. In any case, there may have been another disease present because scurvy did kill some seamen, but many were killed by an unidentified, contagious illness.

Fray Francisco Palóu related how the diseases came to San Diego:

On the 30th [of April 1769] the flagship [San Carlos] anchored in the harbor of San Diego, having spent on the voyage from Cape San Lucas one hundred and ten days. The captain of the San Antonio, seeing that the other vessel was not putting out a launch, although it was inside the port, and being fearful of some misfortune, sent out his own launch. The flagship was found to be in no less trouble than to have all its men infected with the plague, with crew, soldiers, and volunteers stricken with disease and unable to work. . . .

Since the bark was infected, and those on board were stricken with scurvy, with the exception of the missionary father, the captain
and officers, it quickly spread to the crew of El Príncipe, [San Antonio] so that in a short time nearly all the men were suffering with the disease, from which thirteen of the volunteer soldiers died. Of the crew of the San Carlos only five remained alive, and of the packet San Antonio only seven were left. Although all of those remaining were infected, it was God’s will to preserve the lives of the twelve so that both barks might not be unable to leave the port.

The cause of the gravity of the sickness of the flagship’s crew was thought to be the water that they had to take on at the island of Cedros. It was so bad that nothing could be cooked in it; the meat came out tougher than before it was put on the fire, and the same happened with the miniestra [soup]; and as they drink the same water, for lack of any other, those who were already ill became worse and the plague seized upon the rest.16

Additionally, Fray Juan Crespí described some symptoms of the disease in his June 9, 1769, letter to Francisco Palóu:

At this time the sailors on El Príncipe are very few, since those who are some what stronger, and able to walk and do a little work, are only about six or seven, while of the soldiers only three are well, all the rest being sick, many dying, the majority with cramps in the legs or all over the body. With all this trouble your Reverence can easily see how well fitted this sea expedition is to continue its course to Monterey.17

Costansó wrote similarly prior to May 14 when the first land contingent arrived:

Every day, two or three of those on board died and the whole [naval contingency of the] expedition, which had been composed of more than ninety men, was reduced to only eight soldiers and as many sailors who were in a condition to assist in guarding the ships, handling the launches, protecting the camp, and waiting upon the sick.18

Herbert Howe Bancroft calculated the number of the expedition’s naval divisions that survived the disease before May 14: “Perez’s men are attacked by the scourge; and of about ninety sailors, soldiers, and mechanics considerably less than one third survive.”19 Fray Francisco Palóu, who was the compiler of the Expedition’s journals and letters, wrote in his Life of Junípero Serra that the disease
also infected the troops in the first land division from Baja California, which was at the time still called California. Palóu wrote:

In this place [after Portolá’s contingent had arrived on July 1] both of the commanders called a council in order to confer and to determine what should be done in view of the fact that so very few of the seamen had remained alive and free from the contagious malady which broke out on board the flagship [San Carlos] and which affected not only the crew but also the troop which had come from California.²⁰

Fr. Zephyrin Engelhardt, (a German-born Roman Catholic priest and clerical historian of the Franciscan Order) discussed the conditions of the expedition upon the arrival of Portolá’s division on July 1:

Next day, July 2, being Sunday and the feast of the Visitation of the Blessed Virgin Mary, a solemn High Mass of thanksgiving was offered up to Almighty God in honor of St. Joseph, the patron of the expedition. About 119 persons, many of them, still very ill, survivors of the two hundred and nineteen who had set out from Lower California by land and sea, celebrated the reunion.²¹

There was a third ship in the expedition called the San Jose. The San Jose was a newly built supply ship assigned to the expedition. The ship experienced a few curtailed starts for New California and then was lost at sea. French medical officer Don Pedro Prat sailed to New California aboard the San Carlos, but his medical supplies were shipped on the San Jose, which was lost at sea. Among those supplies was lemon juice, which was essential to preventing scurvy.²² Palóu mentions that, in addition to the scurvy, the unidentified disease that infected seamen aboard both ships had spread to the soldiers in the overland party, and also killed many pigs aboard, which were a substantial source of food.

Why the expedition established its new camp at Cosoy’s water source

One hundred and sixty years before Portolá’s expedition, Sebastián Vizcaíno sailed to San Diego Bay in order to locate safe harbors in Alta California for the Spanish Manila galleons. When exploring the bay, the Spaniards documented drinking water on Coronado’s North Island. The water, as it would turn out, was unfit to drink. According to historian Iris Engstrand:
The water of the wells which were dug by the men of General Vizcaíno on the tongue of land or sand of which Torquemada spoke is very salty and only in an urgent case of necessity is one able to drink it and then with danger to his health.23

There were drinking water holes, or wells, in the river sand upstream from Cosoy that were more distant from the anchorage than Cosoy’s water source and, therefore, less desirable as a ship’s watering station. Fages related his reconnaissance of the river upstream between Cosoy and Mission Gorge: “The river has dried up although at a depth of two spans [16 inches], by digging in the sand, very good water comes up. All along the banks there are very good water holes and woods; the land appears to me to be very good.”24 Downstream from Cosoy was a tidal flat and water drawn from holes would be mixed with seawater and was thus unhealthy to drink.

Costansó and others had scouted the bay’s shoreline on May 1 and had been led to what he called the “watering-place.”25 Vila on May 5 ordered Lieutenant Fages to make a reconnaissance by sea in a launch of the San Diego river mouths. They discovered that Cosoy’s water source was about one league (two and a half miles) from the closest anchorage. Later the same day, “the launch of the San Antonio with her captain and several soldiers went around to reconnoiter the bay to the South East, in which direction the port extended.”26 While exploring the bay, the Spaniards sought a more convenient watering station for their ships and personnel. The shoreline along the northern and eastern sides of the bay from Ballast Point to Chollas Creek was about 11 miles. At Chollas Creek was another Kumeyaay rancheria, but no other good drinking water sources, except the San Diego River and Cosoy’s water source.

On May 14 before the second land division arrived, about 119 Spanish seamen needed good drinking water. When the second land division of the Expedition arrived at San Diego Bay, there were about 358 mules and horses also in need of good drinking water.27 It was easier to move the livestock and people to the water than to carry the water two and a half miles to them.

Vila and Fages had been instructed by José de Galvez that their primary objective was to establish a presidio at Monterey Bay without delay. The preamble to Commander Vila’s orders read:

1st. The object is to establish the Catholic faith, to extend Spanish domain, to check the ambitious schemes of a foreign nation, and to carry out a plan formed by Felipe III as early as 1606. Therefore no pains can be spared without offence to God, the king, and the country.
2d. The vessel being new, strong, and well supplied for over a year, to be followed by the San Antonio with additional supplies, having only 300 leagues to make, having a strong military force, and going to a land whose natives are docile, have no arms but bows and arrows, and are without boats, there can be no excuse en lo humaito for failure.28

Cosoy’s defensive enclosure existed and it was near the fresh water. It was understood that the enclosure “made of branches and trunks of trees” could be repurposed for a Spanish stockade. There also seemed to be little threat to establishing the new camp near Cosoy. A month after the expedition established their garrison near Cosoy, Fages reported to Gálvez on June 26, 1769 that the natives were docile.

With regard to the Indians, they appear to be docile and alert. We have made very good friends with them and we are never lacking some little rabbits, hares, and fish that they bring to us. We give them some glass beads, but they value very highly any kind of cloth, no matter how poor it might be, since in exchange for some that I had, I received some furs and nets.29

The May 14 arrival of Rivera y Moncada brought 25 fresh soldiers for defense, in addition to mules for transporting cargo from the launches to the new camp. Costansó described the choices presented in his Narrative:

They rested on that day near the camp of the sick, [East side of the bay] and were supplied with food to recover their strength. The officers resolved to move the camp close to the river, which had not been done before because it was not deemed advisable to divide the small force they had for the protection at once of the vessels and of the people lodged on shore [in the hospital]; at the same time, the greater convenience of a shorter distance for the transportation had to be taken into consideration, in order not to tire unduly the men who were handling the launch, as the want of beasts of burden obliged them to carry on their shoulders everything that was brought on shore...

The governor [Portolá] was of opinion that the unforeseen misfortune of the ships did not excuse him from continuing his journey to Monterey by land … He therefore determined to continue his march in search of that port, without waiting till the season had
too far advanced, so as to avoid the risk of the snows blocking passage across the mountains that might be encountered on the way. 30

It would be unacceptable for Portolá to leave the hospital at San Diego Bay without a stockade for protection and a good water source. The water was as important as the stockade since there were about 64 sick seamen, soldiers,
mechanics, Christian Indians, and priests. As a result of these factors, the Spaniards occupied Cosoy’s water source for their new camp.

**Cosoy’s water source and Derby’s spring**

In the past it would have been difficult to support the statement that Costansó’s watering-place was at Presidio Hill. New information, however, about the watering-place location was contained in the 1975 translation of Costansó’s June 28, 1769 letter. The information is in a description by Costansó of the May 15, 1769, move of the hospital from the east side of the bay to the new campsite. In 1853 Lt. George Derby, United States Topographical Engineers, surveyed a map of the San Diego River. The Field Map of his survey indicates a spring at Presidio Hill. With this information, it is possible to demonstrate that Costansó’s watering-place, Cosoy’s water source, was at Presidio Hill.

In his June 28, 1769, letter to José de Gálvez, Costansó included evidence about the water source: “As soon as the first portion of the land expedition had arrived we changed our quarters to a better site adjacent to the water source even though it was some distance from the ships.” Additionally, Costansó wrote in his *Narrative*: “All moved to the new camp which was transferred one league further north on the right bank of the river, on a hill of moderate height, where it was possible to attend with greater care to the sick, whom the surgeon, Don Pedro Prat, did not leave for a moment.”

Since these two writings describe the same move, we know that the hospital on the hill and the water source were adjacent to one another. It is apparent that Cosoy’s water source was near the hospital, which gradually evolved into the presidio site. The hospital was established May 17, 1769. On July 16, 1769, Mission San Diego de Alcalá, the first in New California, was established adjacent to the hospital on the hill. The Kumeyaay made various attacks against the Spaniards on the hill from August 12 to 15, 1769, so a stockade was built around the mission. Later, by mid-1774, the mission was transferred six miles up Mission Valley to its current site, and the mission buildings on the hill became part of the military garrison, by then elevated to the status of Presidio, which included families of the soldiers. Construction of the adobe wall around the Presidio began in April 1782. The 1769 hospital and the 1782 walled presidio were the same site in a locational sense. The word “hospital” equaled “presidio.” Substituting “presidio” for “hospital” in the quotation “Cosoy’s water source is near the hospital” can be understood that Cosoy’s water source was near the presidio.

About 80 years later, Lt. George Horatio Derby, assisted by the civil engineer, C. H. Poole, was ordered to San Diego in 1853 to make an accurate survey of the
San Diego River in the vicinity of the town. On a portion of his field map a spring and a palm tree are indicated. The reader may wonder why Lt. Derby would map a small spring when his purpose was to map the San Diego River. An early 1918, US Geologic Survey of topographic instructions for mapping springs suggests earlier training by the US Army Corps of Topographical Engineers at West Point:

_Springs._ The importance of springs is dependent on their relative usefulness as a part of the water resources of the region in which they occur; and that is the criterion that should govern their mapping. Thus, although it would be entirely proper to omit springs in large numbers from maps of well-watered regions, it would be manifestly improper to omit them from any map, even the merest reconnaissance, of desert regions. There, springs are literally of vital importance, and their omission or erroneous location may have the gravest consequences to those dependent on the map.

There is independent confirmation of the spring on Derby’s map. This is a 4 x 6.9 inch orange stereo view card from about 1869. The illustration above shows a serpentine outflow channel that corresponds with Derby’s map. The channel is behind the right-hand palm tree trunk. The palm tree, however, is mapped on the north side of the outflow channel, in the photo it is on the south side, and only one of the two palms at this location is mapped. From a distinct shadow just to the left of the fence, a well or cistern is interpreted at the base of the hill. Cosoy’s water source was near the presidio and Derby mapped a spring at the base of Presidio Hill. The obvious explanation is that Cosoy’s water source and Derby’s spring at the base of the hill are one and the same, which establishes a fixed 1769 location, the new campsite, on Derby’s map. Part of the spring is represented within the hill’s hachures indicating an area on the hillside where water was...
seeping and collecting is called the seep. At the base of the hill is a serpentine channel where water flowed. Downstream of the channel is a series of short lines, perpendicular to the flow indicating absorption of water into the ground, also called a sink. The channel at the base of the hill was where water pooled and could be drunk. Practically speaking the channel was Cosoy’s water source.

The birth of New California on May 15, 1769

Many historians and archaeologists have filled in a blank and assumed that on May 15 the new camp was established on the hill. There is no contemporary or primary source documentation, however, indicating that anything but the new hospital was established on the hill. Costansó’s letter of June 28, 1769, explicitly states that the location of the May 15 new camp was “adjacent to the water source.” There are three first-person descriptions of the May 15 move to the new campsite, and Costansó wrote two of them. His June 28 letter reports the expedition’s progress to his overall commander, José de Gálvez. The second of Costansó’s description of the move is in his Narrative. José de Cañizares, a promising teenage pilot’s mate, also describes this move in his journal.

Costansó’s letter states that the new camp was adjacent to the “water source” not using the wording “watering-place” as in his Narrative. The difference is almost certainly not a distinction intended by Costansó, but arises in the translations:
As soon as the first portion of the land expedition had arrived we changed our quarters to a better site adjacent to the water source even though it was some distance from the ships… In the new quarters, using the same precautions as in the first we also built another pole stockade for our security and put up some large sheds in order to cover the provisions and equipment of the expedition.37

The “same precautions” to which Costansó refers are described in his *Narrative* entry about establishing the temporary hospital on the east side of the bay:

A small enclosure was built with a parapet of earth and brushwood, and mounted with two cannon. Some sails and awnings were landed
from the vessels and, with these, two tents suitable for a hospital were made. On one side were placed the tents of the two officers, the missionaries, and the surgeon. When everything was ready to receive the sick, they were brought on shore in the launches, and were housed in the tents as comfortably as possible.\textsuperscript{38}

Costansó's \textit{Narrative}, disclosing no military information about the move to the new camp, states only that the hospital was set up on the hill:

All moved to the new camp which was transferred one league further north on the right bank of the river, on a hill of moderate height, where it was possible to attend with greater care to the sick [a hospital], whom the surgeon, Don Pedro Prat, did not leave for a moment and nursed with the utmost kindness.\textsuperscript{39}

José de Cañizares wrote that the “barricade” was built in two days, then the hospital was set up, and lastly the huts and corral were built. He did not mention a pole stockade. His journal gives us evidence about the phasing of the move:

May 14 - Feast of Espíritu Santo…. After traveling six leagues we came to the place where the ships lay at anchor; we hailed them, and were answered from aboard the vessels and from the shelters on the hill.

\textit{Site on Presidio Hill where Mission San Diego de Alcalá was dedicated on July 16, 1769.}
beach. We reached the encampment at five o’clock in the afternoon and heard the news that the whole sea expedition was sick from scurvy. We stopped here, and the following day, the 15th of May, learning that there was a river near this port, we went to it and pitched camp and built a barricade. The sick men were made ready and taken from the ships to the place where we were lodged. This was done on the 17th.

From the 18th of May to the 28th of June the company of Don Fernando de Rivera has been assisting with the work of the ships and in unloading El Príncipe [San Antonio]. Some huts for the men and a corral for the animals have been constructed. We have not been able to establish a mission because our time has been spent in the above-mentioned tasks.

June 29 -The governor arrived...José de Cañizares.40

These three descriptions of the new garrison in mid-May suggest that its components at the “hill of moderate height” were: a water source, a pole stockade, parapet, hospital tent, large sheds for provisions and equipment, a barricade, huts for the men, and a corral for animals.

Mission San Diego de Alcalá was founded on July 16, 1769, by Fray Junípero Serra. It was the birthplace of San Diego in present-day California. Fray Francisco Palou’s Historical Memoirs of New California reports evidence that construction of the pole stockade on the hill began after the August 15 attack on the hospital and mission by Kumeyaay from Cosoy: “Because of what happened, our men attempted to make a stockade of trees for defense, and endeavored to prevent any heathen from approaching armed within a gunshot of the stockade, by which means a new disturbance was avoided.”41

This clarifies that the new camp’s May 15-16 pole stockade was a different stockade from the later one on the hill. There is no explicit statement for the location of the pole stockade, possibly because it was an alleged military secret. There was a similar pole stockade built in 1774 with tall poles, an interior storage shed, and originally built without a parapet. Its construction required the combined efforts of 160 men for 5 days.42 In comparison it seems improbable that Rivera y Moncada’s 43 ambulatory men, including 25 soldiers, 5 officers, and 13 Christian Indians, could build a pole stockade with parapet in just two days. Therefore, the evidence suggests that the Spaniards occupied Cosoy’s defensive enclosure for their pole stockade and only the parapet was dug and cannon mounted in the two days.
Palóu’s comment implies that the pole stockade of May 15-16 was at the base of the hill. But, for either Cosoy’s defensive enclosure or the Spanish parapet to be sited at the very base of the slope defeats its protection from downward directed fire. Therefore, the parapet and stockade, or Cosoy’s defensive enclosure, would have been away from the base of the slope for military reasons. If the stockade was established toward the western end of the channel, then the location of the Serra Palms may be a vestige of the new camp’s pole stockade. In other words, the location of the Serra Palms may indicate the 1769 location of Cosoy’s defensive enclosure.

The hospital was on the hill and Derby’s map verifies that Cosoy’s water source was at the base of the hill. The large sheds would have been in or near the stockade to store cargo unloaded from the Packets. The corral for the animals would also be at the base of the hill for the water. Cañizares’ “barricade” in his censored journal was probably the same new camp component as Costansó’s pole stockade plus parapet in his less censored military report. Huts for the men would be near the pole stockade at the base of the hill. One hundred feet away on the hill, the new camp included a hospital tent for the contagious sick.

Derby’s map does not show the southwest corner of the presidio quadrangle. There is a possibility, not yet confirmed, that after 1782 when the presidio’s adobe outer wall was built it extended to the base of the hill so that the seep was inside the fort. The stereo view shows a linear feature at the base of the hill, which may be associated with a wall.

**Cosoy’s water source and the landmark designations**

The Serra Palm (Site) Point of Interest #67 (California Office of Historic Preservation 1932) and the San Diego Presidio National Historic Landmark (National Register of Historic Places
Inventory 1960) are important public documents that were designated before 1975.45 That year, Costansó’s letter about the new camp of May 15, 1769, indicates that it was “adjacent to the water source,” as translated into English.44 This letter was not available to the landmark authors, and thus neither of these two landmark designations reference Costansó’s water source. Additionally, neither reference the spring recorded on Derby’s field map.

After the presidio was abandoned in 1837, Derby’s 1853 field map documents a seep and a sink where the water source was still flowing.46 Cosoy’s water source at the base of the hill was in continuous use for almost 70 years throughout the active use of the presidio and was a permanent part of the installation. The new camp at the base of the hill and the presidio settlement on the hill are two parts of the same historic site. With the exception of the hospital tent on the hill, no part of the expedition was on the hill until July 16, 1769, when Serra founded the Mission San Diego. It was after the mission was founded that, “some humble huts or sheds are built, [upon the hill] one of them destined to serve as a chapel.”47

Cosoy’s water source at the base of the hill was more than a temporary meeting place of the four divisions of the Portolá Expedition, as suggested by the Serra Palm California Historical Landmark designation #67. We know the new camp was begun on May 15 “adjacent to the water source” which places it at the base
of the hill. Portolá’s first land expedition to Monterey Bay set out on July 14 from the new camp at Cosoy’s water source, and in the process discovered San Francisco Bay. The San Diego Presidio National Historic Landmark states that the “San Diego Presidio…is the site of the first permanent European settlement on the Pacific coast of the United States.” Because the new camp began on May 15 “adjacent to the water source,” as we now know that the first settlement began at Cosoy’s water source part of the Presidio. Additionally, the meeting place of the four divisions, on July 2, 1769 included the Te Deum mass celebrating that the meeting was conducted at Cosoy’s water source part of the Presidio. The City of San Diego’s official position regarding the presidio states: “Buried high on a hill above Mission Valley are the ruins of the San Diego Royal Presidio.” As part of the presidio, Cosoy’s water source was at the base of the hill, and this description should be expanded to include it. For these reasons, part of the birthplace of New California was the water source at the base of the hill.

The San Diego Presidio landmark covers that portion of the City of San Diego’s Presidio Park partially bounded by Taylor Street and Presidio Drive. The landmark’s boundaries are sufficient for a presidio built entirely on the hill. It appears, however, that the location would be insufficient for protecting potential archaeological remains at Presidio Drive and at Taylor Street. Evidence from Costansó’s letter and Derby’s map documents a remarkable episode, in the founding of New California.

“A ranchería is a Southwestern Amerindian community with dispersed habitation sites. With this definition it is entirely possible that the Brown habitation site was a part of the Kosa’aay ranchería, although it was an outlying habitation site. Fages; letter to José de Gálvez of June 26, 1769 also supports the conclusion that the Brown habitation site could have been part of the Kosa’aay ranchería. In this letter he describes the exploration of the river valley east of Presidio Hill:
“We went with Don Miguel Costansó to examine the river which empties into this port. It was somewhat swollen when we arrived. In less than three leagues we found three rancherías along the bank....”

Other evidence about the location of Cosoy

On May 1, Costansó wrote that the Spaniards hiked about three leagues (7-8 miles—one league is about 2.5 miles) to the banks of the river. The distance from Ballast Point to the base of Presidio Hill is only 6.3 miles. Between Point Loma and today’s Old Town site in 1769, one had to hike through at least three quarters mile of wetlands. A circuitous route through the wetlands would have taken more time than a direct route. Costansó continued: “Nor was it possible for our men to make greater speed because they were weak, and after so long a sea voyage had, as it were, lost the use of their legs.” If Costansó calculated his distance traveled based on the amount of time he hiked, then he would have overestimated this distance. At a hiking speed of three miles per hour, 1.5 miles translates to an extra half hour of hiking.

Palóu relates an event that occurred at the San Diego Mission just after the Kumeyaay attack of August 15:

On account of the foregoing events the Indians abandoned the village and for many days did not permit themselves to be seen....
The heathen burned their dead, as is their custom, and the weeping made by the women in the village, which was heard from the mission, lasted for many days.54

It would have been possible at the mission on the hill to hear weeping from Cosoy’s shelters, ewaa, down slope and only 300 feet away.

**The location of the 1769 Kumeyaay village the Spaniards called Cosoy**

Now that 1769 Cosoy’s water source has been located on Derby’s map, it is possible to apply recorded distances to and from Cosoy’s shelters—ewaa. This fixed point of reference at the base of Presidio Hill is variously called: “Cosoy’s water source,” “Derby’s spring,” the “watering-place,” “quarters,” “new camp,” “camp,” and “garrison” in this article. There are two documents by Costansó written in 1769 that describe the distances to and from Cosoy’s ewaa. The first document is Costansó’s June 28, 1769, letter to José de Gálvez:

> We have our quarters on one side of the canyon which encloses the bed of the stream or rivulet of which I spoke before and which in actuality has no other water than that retained in the wells. At a rifle shot’s distance or a little less inside the same canyon, the Indians have a ranchería consisting of some twenty-five families…55

The distance from their camp at Cosoy’s water source to Cosoy’s ewaa is one musket shot or a little less. The second description is in Costansó’s *Narrative* entry for May 1, 1769:

> The river came down from some very high mountains through a wide canyon, which ran into the interior in an easterly and northeasterly direction. Within a musket-shot from the river, outside the wood, they discovered a town or village of the same Indians who were guiding our men. It was composed of various shelters made of branches, and huts, pyramidal in shape, covered with earth [ewaa].56

Vila recorded that these huts were “scattered along the stream.” The distance from the river to Cosoy’s ewaa is within one musket shot; and the ewaa are outside the wood. Costansó’s distances were probably accurate because he was a professional military engineer who had walked this field of fire, and his training was building military defenses. In order to plot these distances we need to know
the effective distance of the arms used in the Portolá Expedition. This question was well-researched in the 1987 article by Ezell and Ezell who conclude that, “the Costansó Expedition would have been armed with smoothbore fusel-type muskets.” A musket shot, “could plausibly be reckoned at 80-150 yards.” In this article we are using 100 yards as the effective range of Costansó’s musket.

The Overlay Map, which is a portion of Derby’s Field Map, appears on page 142 showing in color the location of the San Diego River in relation to the new camp and the distance from the river to the ewaa in pastel green. When Costansó measured the “new camp to ewaa distance,” it is assumed that it is the distance to a nearest ewaa. Since the ewaa were scattered along the river, the distance would have been greater to subsequent ewaa. The fan on the Overlay Map represents the summation of rays, possible bearings, of the “new camp to ewaa distance.” Only one of these rays represents the bearing to the nearest ewaa. Because we do not know the bearing of Costansó’s musket shot, we do not know which ray is to the nearest ewaa. This leaves us with an arc of possibilities to the nearest ewaa. Increasing the likelihood of locating an ewaa with a single ray is the observation that Cosoy’s shelters were spread out along the river.

Likewise when Costansó crossed the river, his “river to ewaa distance” was
probably the distance to a nearest *ewaa*. In this case the “river to *ewaa* distance” is not from a fixed point; there are several potential bearings from the river to a single ray of the “new camp to *ewaa* distance.” In order to reduce the vast number of potential combinations of bearings on the Overlay Map, there are illustrated only four of the potential bearings of “river to *ewaa* distance” at two different “new camp to *ewaa* distance” rays. The plotting of the river’s location in 1769 is obtained by adding the “river to *ewaa* distance” to the “new camp to *ewaa* distance.” Only one of these rays from the “river to *ewaa* distance” represents Costansó’s historic bearing when he crossed the river. It is improbable that Costansó’s bearing of the “river to *ewaa* distance” was the same as the subsequent bearing of his hike to the defensive enclosure/water source, “new camp to *ewaa* distance.”

On Derby’s field map there is an “S” shaped line representing a contact between two soil types. On the river side of the contact is alluvium—river deposited sand and gravel—represented with larger dots. On the hill side of the contact is colluvium, soil and rock deposited by erosional processes on the land, represented by small or no dots (p. 141).59 The soil contact is relevant to the location of *Cosoy’s *ewaa* because of Costansó’s May 1 description in which he wrote that the Spaniards came to “a river lined on both sides with overspreading cottonwoods… Within a musket-shot from the river, outside the wood, they discovered a town or village.”60 The arc of the pastel purple rays is east of the line of soil contact. There is no river bank at the soil contact point on Derby’s Profile A – D.61

A description of California cottonwood trees tells us how they grow:

Fremont cottonwood occurs in riparian communities throughout the Southwest and much of California. It grows primarily on alluvial soil and on other sites where subsurface water is available during the growing season, such as near water tanks, along irrigation ditches, dry washes, floodplains of major rivers, large perennial streams, springs, and in desert oases. Large, mature trees are generally found close to the main channel, while the seedlings and saplings are located on the widest parts of the floodplain.62

This soil contact on Derby’s Map would have been the demarcation line of the cottonwoods.

The trails on Derby’s map probably developed from earlier Kumeyaay foot paths. The place in which the trail forded the river in 1769, called “Costansó’s ford,” would probably still have been the ford on Derby’s 1853 map. This is just left of point “A” on the Overlay Map. Using the bearing of this ford on Derby’s Map as Costansó’s bearing when he crossed the river, a musket shot from the river,
the “river to ewaa distance,” agrees with his description that Cosoy’s ewaa were outside the wood. This ford yields a consequential 1769 river location that agrees with the 1853 river location. The point where the ford’s “river to ewaa distance” meets a ray of the “new camp to ewaa distance” is a solution of Cosoy’s ewaa location on May 1, 1769, which satisfies all currently known evidence.

It would be a mistake to think that this solution is extremely precise. If Costansó’s musket had a greater effective range then 100 yards, then the meeting place of the two distances would be shifted toward the west. Also I have assumed Derby mapped the palm tree location accurately, but, if he mapped the spring accurately, then the ewaa would be shifted north. Over all, my analysis of the evidence indicates a credible solution to the 1769 location of Cosoy’s ewaa.

To know about New California’s birthplace, one can study the Portolá Expedition and the founding of San Diego de Alcalá, the first mission. To know the unabridged story, it is necessary to appreciate the contributions of Cosoy’s people, their sharing of drinking water, and the essential role of Cosoy’s water source for the survival of the members of the Portolá Expedition of 1769. As of 2016, no archaeological searches at the base of Presidio Hill for Cosoy’s water source, Cosoy’s defensive enclosure, or Cosoy’s habitations have been conducted.

NOTES


3. George Derby’s map #15b, 1853. San Diego History Center Research Archives.

4. The words Kosa’aay and Cosoy have culturally different meanings. In the Kumeyaay language, Kosa’aay was a ranchería. Within their ranchería, the Kumeyaay of Kosa’aay hunted, scattered seeds, gathered food, fished, and lived. It was their extensive ancestral homeland. Cosoy, the village name in Spanish, was made up of about 25 huts along the river below Presidio Hill. The Spanish used ranchería in a limited sense.


y Moncada was captain of the Presidio of Loreto and was commander of the first overland division of the Portolá Expedition. He later served as third Governor of New California from 1774-1777.


11. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 123.


13. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 123.


15. Ibid.


17. Bolton and Bower, Fray Juan Crespi, 2.

18. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 123-125.


20. George Wharton James and Scott C. Williams, Francisco’s Palou’s Life and Apostolic Labor of the Venerable Father Junipero Serra. Pasadena: George Wharton James, 1913. 76.


25. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 117.


27. Richman, California Under Spain and Mexico 1535-1847, 75.


30. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 125-129. Additionally, the transportation of water 4,000 feet from the water source to the nearest the launch could only navigate when the river was not flowing.


32. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 125-127.

33. George H. Derby, Map 15 Riv. 1853. San Diego History Center Research Archives, 15b(1). George Derby (1823-1861) served as a Lieutenant in the US Army Corps of Topographical Engineers and in his spare time wrote humorous anecdotes for the San Diego Herald under the psuedonyms John Phoenix and Squibob.
35. Hachure columnar lines are an older mode of representing relief. They show orientation of slope, and by their thickness and overall density they provide a general sense of steepness.
36. Water that emerges at the surface without a perceptible current is called a seep. (Illustration 5.)
38. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 123.
39. Ibid, 125-127
45. See Heidi Trent and Joey Seymour, “Examining California’s First Palm Tree: The Serra Palm,” The Journal of San Diego History, 56 (Summer 2010) 3:105-120.
47. Bolton, Historical Memoirs of New California by Fray Francisco Palou, 268.
51. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 119.
53. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 117-119.
56. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 117-119.
58. Old Town San Diego Community Base Planning Map, San Diego City Clerk’s Office.
59. George H. Derby, Map 15 Riv. 1853. San Diego History Center Research Archives
60. van Hemert-Engert and Teggart, eds., Costansó, Narrative, 117-119.
61. Derby, Map 15 Riv. 1853.