

SCIENTISTS ON THE LA PLAYA TRAIL

1769-1851

JAMES LIGHTNER

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Cover photograph: San Diego Bay from Cabrillo National Monument

Figure 1 (facing page): Charles C. Parry (1823-1890) c. 1865, courtesy Wisconsin Historical Society WHS-46969

Also from San Diego Flora:

San Diego County Native Plants, 3d ed. (2011). A comprehensive color field guide to native and naturalized plants of San Diego County, incorporating the latest taxonomy from *The Jepson Manual*, 2d ed.

San Diego County Native Plants in the 1830s, The Collections of Thomas Coulter, Thomas Nuttall, and HMS Sulphur with George Barclay and Richard Hinds (2014). Accounts of the visits of UK naturalists to San Diego County in the 1830s, with detailed footnotes and historical background.

Parry's California Notebooks, 1849-51 (2014). A transcription of the notebooks of Dr. Charles C. Parry, also including letters to Dr. John Torrey, more than 200 historical and scientific footnotes, appendices, and detailed index.



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Figure 1. Dr. Charles C. Parry (1823-1890). Photo c.1865.

Good evening, and thank you for the invitation to speak about the history of this remarkable peninsula, Point Loma. It is quite a place, with its sweeping Pacific reefs, ideally sheltered bay, majestic views, and nearly perfect climate. Thank you to the La Playa Trail Association for commemorating Point Loma's famous first road and for reminding us all of the value of learning history.

The subject of the talk tonight is early scientific explorations around the La Playa Trail. There are copies of the presentation here. We also publish some books related to the subject. The first is *San Diego County Native Plants*, a 430-page field-guide to the county's natural vegetation. The second is *San Diego County Native Plants in the 1830s*, a booklet about scientific expeditions in the chaotic decade of the 1830s. And the third is *Parry's California Notebooks, 1849-51*, a transcription of the notes of Dr. Charles C. Parry (Figure 1), who surveyed extensively across San Diego County. Parry left a detailed record that only came to light in 2014.

I should mention how I came to know a little about the subject of the talk. Around 1999 I acquired land in the foothills of the county and became the steward of quite a lot of natural vegetation, animals and artifacts. I started studying what was on the land and organizing the knowledge I gained. That hobby has led in many directions. Over the past few years I've read many of the primary sources from early explorers and scientists who were the first to study the natural environment here. Much of what I'll say this evening is informed by those texts and related research.

Historical Context

In the 2003 movie *Master and Commander* a British warship sails around South America in pursuit of a larger French warship. Figure 2 is an image from the film, set around 1805 during the Napoleonic Wars. The British captain allows the surgeon, played by Paul Bettany, to explore on the



Figure 2. Image from the 2003 film *Master and Commander* (20th C.Fox).

Galapagos Islands. We get an idea from that scene of the delight scientists had discovering new species in the eastern Pacific.

Similar scenes occurred along the La Playa Trail. The timeframe corresponds with Spanish and Mexican government, between 1769 and 1851. The Spanish settled San Diego in 1769, and California gained statehood in September 1850. As a point of reference, Darwin's *On the Origin of Species*, which advanced the theory of natural selection, came out in 1859.

During those decades before Darwin just a few hundred people of European descent lived in the region including Old Town. The majority of the region's inhabitants were Native Americans whose first language was an indigenous tribal one.

At the time there were expeditions and voyages under various flags. Table 1 is a list of the explorers we will discuss this evening. They came from Spain, the UK, France and the USA.

Although Spanish ships regularly passed through San Diego with people and supplies, I am not aware of any Spanish scientific voyages that anchored here.

Table 1
Noted Scientists & Explorers in San Diego, 1769-1851

Year	Scientist/Explorer	Exped.leader	Flag; ship or rte.	Ref.
1769	Fr. Juan Crespi	Portolá	Spain; overland	[1]
1793	Dr. Archibald Menzies	Vancouver	UK; HMS <i>Discovery</i>	[2]
1827	Dr. Paul Botta	Duhault-Cilly	France; <i>Le Héros</i>	[3]
1836	Thomas Nuttall	Wyeth	UK, USA; <i>Alert</i>	[4]
1839	Dr. Richard Hinds	Belcher	UK; HMS <i>Sulphur</i>	[5]
1846-50	Col. William Emory	Kearny	USA; overland	[6]
1849-51	Dr. Charles Parry	Emory	USA; unid.ships	[7]

[1] *Original Journals of the First Expedition into California, 1769-70*; Brown, Alan K. ed. & translator; SDSU Press, San Diego, 2001.

[2] *Menzies' Journal of the Vancouver Expedition*; Cal.Hist.Soc.Q. Vol.2, No. 4, Jan.1924.

[3] *Voyage Autour du Monde...*; A.Duhault-Cilly; transl. Carter, C.F. in Ca.Hist.Soc.Q.1929. *Observations of the Inhabitants of California, 1827-1828*; Botta, P.E.; transl. by Bricca, J.F.; Glen Dawson, Los Angeles, 1952.

[4] *A Flora of North America*; Torrey, J. & Gray, A; Wiley&Putnam, NY; Vols.1-2, 1838-43.

[5] *Narrative of a Voyage 'Round the World*; Belcher, E.; H.Colburne, London, 1843. *The Botany of the Voyage of HMS Sulphur*; Hinds, R.; Smith,Elder & Co. London; 1844.

[6] *Notes of a Military Reconnoissance, from Fort Leavenworth..to San Diego...*; Emory, W.H.; U.S.Ex.Doc.No.41, Washington D.C. 1848.

[7] *Parry's California Notebooks 1849-51*; ed. Lightner, J.; San Diego Flora, 2014.

The Pre-Contact Landscape in 1769

Though few Spanish scientists visited, the Franciscan missionaries were highly educated and practical men, and their records are important for understanding the natural environment.

Captain Vicente Vila of the ship *San Carlos* wrote the initial account of the La Playa Trail around May 1, 1769. **Figure 3** is Captain Vila's map. According to Vila two Spanish ships anchored inside Ballast Point. A party of missionaries and soldiers took a launch to shore, encountered local Indians, walked a few miles to the San Diego River where they found fresh water, and then returned to La Playa. Within a few days the ships moved to the other side of the bay closer to the San Diego River. Many sailors were gravely sick.

The advance party of the land expedition arrived two weeks later. The most detailed chronicle of that expedition was kept by the Franciscan Juan Crespi, who was 48 when he arrived here on May 14, 1769. Some of Crespi's text is shown on the facing page.

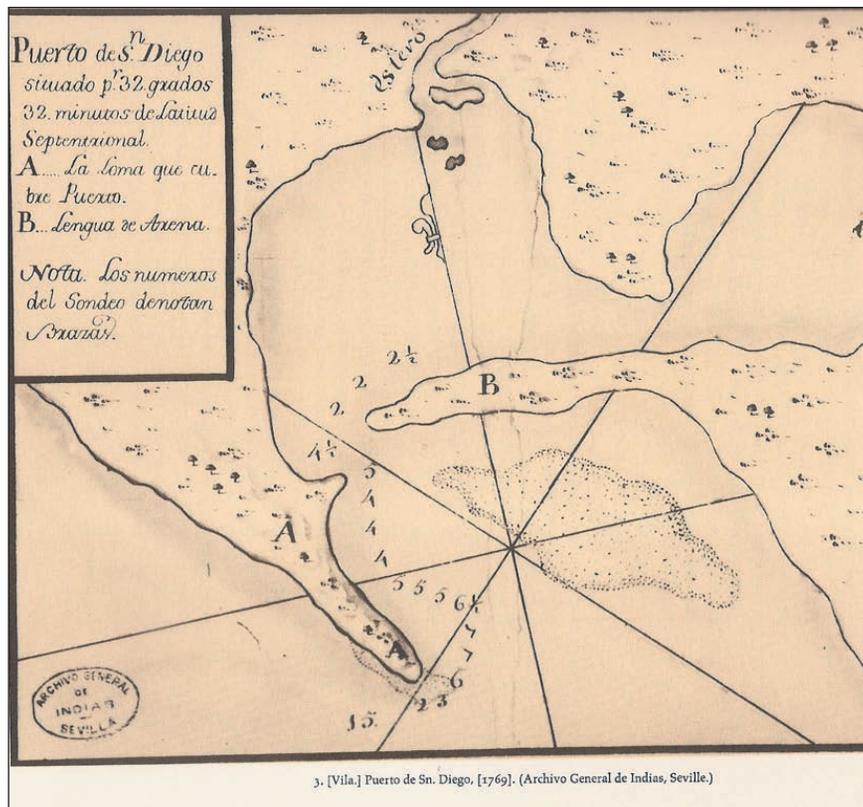


Figure 3. Captain Vicente Vila's 1769 map of San Diego Bay.

Fr. Juan Crespi

Journal-excerpt Describing Pre-Contact Landscape at San Diego

May 14, 1769 ... With all good fortune and happiness we gained sight of... San Diego. We saw anchored there the two packet-boats *San Carlos* and *San Antonio*... To our sorrow we found the camp turned into a hospital...

On the northeast of the harbor here, not very far from its shore, there runs a very grass-grown valley [*una cañada de tierra toda muy empastada*] and all very good level crop-growing land, the length of which must be not under 3 leagues [=10 miles] and the width about 1/2 league...[Mission Valley].

Upon our arrival here, a river... was running through the midst of this valley, having a bed of 6 or 8 yards width and a depth of about 1/2 yard of very fresh, pure delicious water, yet it kept shrinking from day to day... such that it entirely ceased flowing three weeks after our arrival. Along this valley, very close to the shore and right by where it is desired to found the new mission, there are a great many large pools of fresh, very pure and delicious water, with the whole riverbed very much lined with Willows, Cottonwoods and a few Sycamores, and some large Live Oaks at the end of the valley. There are vast numbers of very lush Grape vines...Rose bushes... Sage [and/or Sagebrush] that is very fragrant, and there are wild Prickly Pear fruits, and Jojobas...

There are a great many big Indian villages here at this harbor, surrounding it... [The men] all go about much armed, with their quivers, bows, and arrows ever in their hands, and many of them carry very fearsome war-clubs.

At an inlet here there are good-sized salt-flats... Very large sardines, rays, and many other fish and a great many mussels... All the Indians here are great fishermen, having a vast number of tule-rush floats which they use for catching fish...

The harbor is not rocky; the land, overall, consists of hills and knolls, everything very grass-grown with very good grasses. [*No tiene piedra este puerto, y la tierra toda generalmente serros y lomerías, mui empastado de mui buenos sacates.*]

I'd like to highlight some significant points from Crespi's account.

1. In 1769 the San Diego River emptied into San Diego Bay. Vila's map (**Figure 3**) clearly illustrates this as do later maps from the study period; see also **Figure 13**. With the exception of a few flood-periods, the river flowed that way for all eight decades between 1769 and 1851.

The river affected access to Point Loma. In 1793 a Spanish officer told Archibald Menzies flooding occasionally connected False Bay and San Diego Bay in a massive wetland, making Point Loma an island.

2. Geologically the shoreline was "not rocky"; it was sandstone, sand, silt and marsh. There were wetlands and salt-flats. Note in **Figure 13** there was no trail like today's Harbor Drive across the rivermouth.

3. In 1769 the river dried up during May. I have found nothing in my reading to indicate the climate differed much from our climate today.

4. Large riparian trees grew in the river's channel. In 19th-c. images the landscape appears bare; after 1769 one doesn't hear of trees near Old Town. I think the Spanish probably cut down those original trees for wood and kindling. Large trees did continue to grow in Rose Canyon.

5. Many Native Americans lived in Mission Valley and near the bay.

6. On the hills the landscape was "very grass-grown", meaning significant areas of grasses and herbs amid patches of shrubbery. Much of Roseville, Loma Portal and upper Ocean Beach were probably like that.

This last point about the hills being "very grass-grown" probably means the vegetation was burned periodically. Intentional burning was common among Native Americans across North America; there were many reasons for it. Spanish settlers liked the grassy cover because it made pasture for livestock, which multiplied rapidly.

Crespi's account and the accounts of his contemporaries, including his fellow Franciscan Francisco Palóu and the engineer Miguel Costansó, help us imagine the pre-contact landscape - what it was like before Europeans altered things. Very soon the landscape changed.

Over ensuing decades the Spanish settlers applied European technology and engineering to their new environment. They imported sturdy tools, weapons, and all sorts of supplies. They installed kilns and mills and erected durable buildings. They cleared roads for wagons and made aqueducts to channel water. They raised cattle, sheep, mules and other animals, and a wide array of crops. They applied European methods to process foods. Native Americans rapidly grew accustomed to the food.

Notwithstanding improvements in infrastructure and food-production, the population of Indians - the people the missions served - apparently declined after 1769. Changes to mores and social structures probably affected reproduction; poor sanitation and health-practices also may have played a part. We know that measles, dysentery, pneumonia, syphilis and other diseases shortened many lives.

Archibald Menzies with HMS *Discovery* in 1793

The first formally educated scientist we know of who collected specimens in San Diego was Archibald Menzies (1754-1842), a 40-year old medical doctor and botanist from Scotland (**Figure 4**). Menzies worked at the Royal Botanical Gardens in the 1770s and studied medicine at the University of Edinburgh. He later joined the voyage of HMS *Discovery* commanded by George Vancouver, which mapped the Northeast Pacific, asserted British rights to colonize there, and determined there was no apparent sea-route across Canada to the Atlantic.



Figure 4. Dr. Archibald Menzies.

Discovery and its companion ship *Chatham* anchored at La Playa on November 27, 1793, and departed December 9. Their orders required them to survey the coast north of latitude 30° N; San Diego is around 32.7° N, so one reason for stopping here was to improve their maps. I am not sure who was considered the chief surveyor or astronomer on the voyage.

Menzies' journal contains several pages about San Diego. A first thing to note is he mistakenly called Point Loma "Point Limos". He also remarked on the size of kelp plants and the hazards of the kelp beds.

Two days after arriving he joined the master of *Chatham* to row south to the end of Point Loma and hike to the top, near the site of the old lighthouse. Menzies wrote there were no trees to be seen, though the ridge was covered with "shrubby and brushwood". His text suggests little change in the coastal chaparral that grows there today. If you have wondered if there were Torrey Pines on Point Loma, Menzies did not note any, nor have I found evidence for them in other historical records.

He did confirm what Crespi had written - that the rolling hills of the northern part of Point Loma were open and largely grass-covered. **Figure 5** on page 8 is a photo of Roseville around 1870, eighty years after Menzies' visit, with the bay in the background. I would guess the terrain resembled this or had even fewer shrubs. The British crew hunted rabbits and quail in the area; both types of game prefer that patchy vegetation.

The San Diego River was still dry in the first week of December 1793. Vancouver's sailors dug shallow wells by the anchorage but the water was brackish. Obtaining fresh water at La Playa required effort.

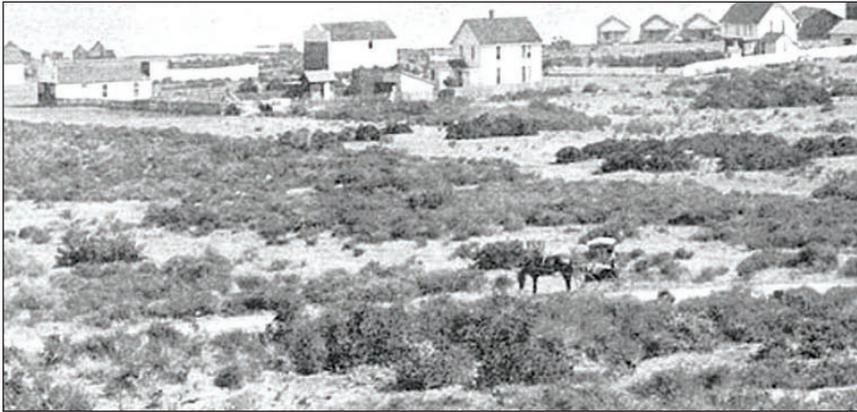


Figure 5. Roseville in 1870 with patchy vegetation (courtesy SD Hist.Ctr.).

Menzies wrote that a priest from the Mission brought him cuttings of Palo Verde and Jojoba, two of our local desert-plants that have edible fruits. Menzies was the first European to collect dozens of west-coast plants for science. He may be best known for *Pseudotsuga menziesii*, the Douglas Fir, which he collected in British Columbia.

His most interesting San Diego record may be a non-native plant he labeled *Mesembryanthemum edulis*. If identified correctly, then in 1793 he found the common large Iceplant we now call *Carpobrotus edulis* (Figure 6). It and other iceplants that thrive here are native in South Africa. One theory is that their seeds spread long ago from ballast dumped near shore. Iceplants may be the first African plants naturalized in San Diego.

Menzies also collected several birds and animals. He took back to London a California Condor specimen, a species that thrived at the time. All kinds of scavengers proliferated on early-California ranchland.



Figure 6. *Carpobrotus edulis* in foreground; Ballast Point in background.

Paul Émile Botta with *Le Héros* in 1827-28

After Menzies there was a hiatus of 34 years before another notable scientist visited San Diego. In the intervening decades the Presidio Guard built and armed Fort Guijarros at Ballast Point, and Franciscans founded the prosperous Mission San Luis Rey de Francia in Oceanside.

In April 1827 the French commercial ship *Le Héros* commanded by August Duhault-Cilly anchored in San Diego Bay with a surgeon on board named Paul Émile Botta (1802-1870) (Figure 7). *Le Héros* stopped in San Diego three times during 20 or so months on the California coast. The San Diego History Center website has a translation of Duhault-Cilly's text.

I think Botta is even more interesting than Duhault-Cilly. His father was a well known academic from Turin, and Botta studied medicine in Rouen under the father of Gustave Flaubert, author of *Madame Bovary* - the story of a French doctor's wife. Botta joined *Le Héros* when he was just 24.

Le Héros later crossed the Pacific, and while it was in China Botta became a habitual user of opium. He went on to use the drug late into life.

Moving to Egypt and the Sudan in the 1830s, Botta was close to the young Benjamin Disraeli. He collected more than 12,000 insect-specimens while living in Africa, a phenomenal number. One can imagine how pleased the Paris curators were to receive Botta's Saharan packages.

But Botta's most important contribution came in the 1840s, when he made a monumental archaeological find north of Mosul in today's Iraq. While working as French consul Botta supervised the excavation of the ancient Assyrian city of Dur-Sharrukin, now called Khorsabad, that had been built in the 7th century BC. His archaeological work revealed priceless monuments and artifacts, many of which are now in the Louvre and British Museum. You all probably know the giant winged bulls that have heads of a bearded king; Botta found those (Figure 8).

In his California notebook Botta was most interested in the Indians but was also drawn to ornithology. He wrote descriptions of quail, pelicans, hummingbirds and the roadrunner. He was first to collect both Anna's Hummingbird (*Calypte anna*) and the Greater Roadrunner (*Geococcyx californianus*) (Figure 8). Given the species' range, he probably collected the roadrunner in San Diego. Duhault-Cilly wrote of see-



Figure 7. Dr. Paul Émile Botta.

ing roadrunners “in the neighborhood of the anchorage” at La Playa.

Duhault-Cilly also noted “numberless flocks” of quail around La Playa, which the French enjoyed hunting. They also shot brush-rabbits; the captain claimed Point Loma was heavily “stocked with them” - probably because of the favorable open terrain discussed earlier.

Another interesting discovery Botta made in San Diego was the Pocket Gopher (*Thomomys bottae*) (Figure 8). The specific epithet reminds us Botta found it. I should note that in pre-contact times rodents including gophers were a food-source for the Indians; with the success of agriculture and ranching, there was less need to hunt small mammals, and they proliferated. Gophers thrived on introduced or non-native plants in cultivated areas and became a nuisance on farms and ranchland.

Regarding botany, we know from Duhault-Cilly that non-native Mustard had already gone to seed in Mission Valley in 1827. Two hundred years later it is a common weed up and down the county.

If you have read Duhault-Cilly’s narrative you may recall the position of *Le Héros* in the affair of the American brig *Franklin*, which Governor Echeandía attempted to impound in San Diego Bay in 1828. The Mexicans had no working boats with which to patrol the bay. We are reminded that La Playa by 1828 was more a cosmopolitan than a Mexican place.



Figure 8. Trained as a medical doctor, Botta became a prolific naturalist and archaeologist. In 1827 his discoveries near San Diego included the Pocket Gopher (photo courtesy John Wall/calphotos) and the Greater Roadrunner (photo courtesy R.L. Sivaprasad/calphotos). In the 1840s he found the famed 7th-c. BC Assyrian palace of Sargon II including massive winged bull kings now displayed at the British Museum.

Thomas Nuttall in May 1836

The decade or so after Botta’s visits was the most tumultuous period in early-California history. Mexican governors secularized the missions, anarchy ensued, economic activity declined, and the numbers of Hispanic residents in San Diego dramatically decreased.

Richard Henry Dana is the foreigner at La Playa with whom we are most familiar; he camped for some months there in 1835-6. Though he was not much interested in sciences, Dana’s book *Two Years Before the Mast* contains helpful observations about the land, the people and the economy.

Those of you who have read Dana remember the anxious moment in May 1836 after he and his mates finished loading the *Alert* with hides. He was very excited to be departing back to Boston. Then the captain informed him he would have to stay another year. Dana protested vehemently. A solution was found whereby he could sail home on the *Alert*.

Once on board he discovered that his old biology teacher at Harvard was also on the ship, in a private cabin that was filled with boxes jammed with specimens. The teacher was Thomas Nuttall.

Nuttall (1786-1859) was an Englishman from Liverpool who came to the U.S. around age 22. Figure 9 is a picture of him late in life. He was an expert on American birds and plants and gained a non-tenured appointment at Harvard in the 1820s. In 1834 he joined Nathaniel Wyeth’s expedition to the Pacific Coast following the Oregon Trail. He spent his last three weeks of that journey collecting in San Diego.

Nuttall hiked extensively on Point Loma and around the bays. He classified more plants of our area than any other scientist with the possible exception of Parry. Nuttall discovered so many of our plants I am afraid a list would bore you. He also gathered shells and birds.

Figure 10 shows four well known Point Loma plants that Nuttall collected here in May 1836. Perhaps the most familiar is Lemonade-berry (*Rhus integrifolia*) in the Sumac family. Personally I am fond of this plant, but Nuttall thought it ugly. In the first edition of Torrey & Gray’s *Flora of North America* he called it “an unsightly tree, about the thickness of a man’s arm, branching widely and forming almost impervious thickets.”

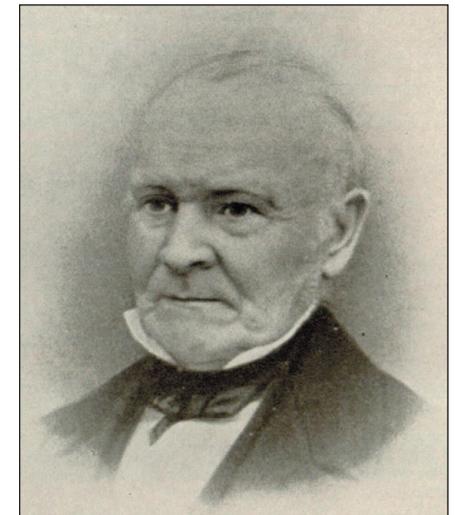


Figure 9. Thomas Nuttall c.1850s.

Nuttall was also the first to collect and identify our coastal Manzanita, Mission Manzanita (*Xylococcus bicolor*), as well as the colorful Bush Sunflower (*Encelia californica*), which he said grew “on dry hills near...St. Diego.” He also described many beautiful herbaceous plants, including what may be our finest coastal wildflower, the Sea Dahlia. You might recognize it from bluffs near the tidepools at Cabrillo National Monument.

Nuttall eventually moved back to the UK. Today it is astonishing to look at maps of his expeditions. A quiet scientist, he bravely explored wilderness all around North America. Moreover, he differed from many collectors in that he did not send specimens to other taxonomists for analysis; he did the lab-work himself. Back home he spent weeks looking under the microscope, comparing specimens and authoring new species.



Figure 10. Selected plants of Point Loma among dozens discovered by Thomas Nuttall. Top L: Sea Dahlia; Top R: Bush Sunflower; Bot. L: Lemonadeberry; Bot. R: Mission Manzanita.

HMS Sulphur in October 1839

By 1839, three years after Dana and Nuttall departed, Old Town was comparatively empty. Bancroft estimated the population fell from around 550 in 1830 to 150 a decade later. I think the hide trade had already peaked when Dana lived at La Playa in the mid-1830s.

In October 1839 the 105-foot sloop HMS *Sulphur* commanded by Edward Belcher (1799-1877), and its tender the 61-foot schooner HMS *Starling*, anchored off La Playa for five days. The principal surgeon on *Sulphur* was Richard Hinds (1812-1847). There was also a botanist named George Barclay collecting for the Royal Society.

I am continually amazed that young men like the 40-year old Belcher and the 27-year old Hinds led major global voyages like that of the *Sulphur*. Its story is somewhat similar to HMS *Surprise* in *Master and Commander*. The ships were on the far side of the world for six years and saw significant naval combat in Southeast Asia. **Figure 11** is a splendid recent painting of them envisioned near Kauai, by the artist Raymond Massey.

Hinds and Barclay collected specimens on and around Point Loma and took them back to the UK for study. A few of their plants had been missed by Nuttall, including the common Yerba Santa (*Eriodictyon crassifolium*) and Twiggy Wreath-plant (*Stephanomeria virgata*).

Both Captain Belcher and Dr. Hinds recorded journals of the voyage including their stop in San Diego Bay. Belcher was pessimistic about the future of the town. He thought the Indians might well drive out the whites unless San Diego first succumbed to conquest. In fact, seven years after *Sulphur's* visit, San Diego was taken by the United States.



Figure 11. HMS *Sulphur* & HMS *Starling*, which visited San Diego in 1839. *The 1837 Charting Expedition of Hanalei Bay*, painted by Raymond Massey.

William H. Emory, 1846-50

One of the leading officers in the U.S. conquest of California was the Army captain William H. Emory (1811-1887) (Figure 12). Emory attended West Point and studied civil engineering before joining the Army's Topographical Corps, which required training in math, astronomy and geodesy. Early in his career he gained expertise in harbor improvements. When the Mexican War got underway in 1846 he was assigned to Colonel Stephen Kearny at Fort Leavenworth for the campaign to Santa Fe and San Diego. He was 35 years old and fought bravely in all the Southern California battles, including San Pasqual and around Los Angeles.

Emory's journal of Kearny's overland expedition is one of the most important founding documents of the U.S. Southwest. Published as an official report in 1848, it detailed a new route to San Diego via Arizona which we refer to as the Southern Emigrant Trail. It includes extensive non-military notes and observations.

His expertise in harbors is evident in Emory's very first notes about San Diego Bay, in December 1846. He wrote:

The Rio San Diego runs underground in a direct course from the mission to the town, and sweeping around the hill, discharges itself into the bay... Well grounded fears are entertained that the immense quantity of sand discharged by this river will materially injure, if it does not destroy the harbor of San Diego; but this evil could be arrested at a slight cost, compared with the objects to be obtained.

That is likely the first official remark on the need to redirect the river. He then continued writing one of my favorite of his quotes:

San Diego is, all things considered, perhaps one of the best harbors on the coast, from Callao to Puget Sound, with a single exception, that of San Francisco. In the opinion of some intelligent navy officers, it is preferable even to this.

There you have a robust endorsement. The Navy still agrees with Emory's assessment, or at least the intelligent officers do.

Emory returned to Washington, and his report became required reading for people in government, planners, military officers, engineers, scientists, and pioneers heading to the Southwest. He was seen as the closest expert on this newly won corner of the continent. So when President Polk assembled a commission to survey and mark the new boundary with Mexico, his War Department sought Emory.

The nominal leader of the Boundary Commission was John Weller, a political appointee, but Emory's titles included chief astronomer and commander of the military escort, and he effectively ran the operation between San Diego Bay and the Colorado River. That portion of the Boundary Survey began in July 1849 and was completed during 1850. Dozens

of soldiers, surveyors and engineers were involved. It was the first time advanced engineering and surveying were conducted in the San Diego region.

Beginning in 1849 U.S. steamships ran regular transports along the coast and anchored at La Playa. The most popular route to and from the East Coast was via Panama. Days spent crossing the Isthmus were the least pleasant part. Emory made several trips in and out of La Playa.

One of Emory's co-leaders on the Boundary Commission was the U.S. government surveyor, Andrew Gray. Figure 13 shows part of Gray's map of San Diego Bay from 1849. You can see the La Playa Trail leading out toward the Mission.

Gray also mapped New Town San Diego early in 1850. We sometimes forget how early in the city's history New Town was conceived. Gray sold lots off his map; I believe Emory purchased one.

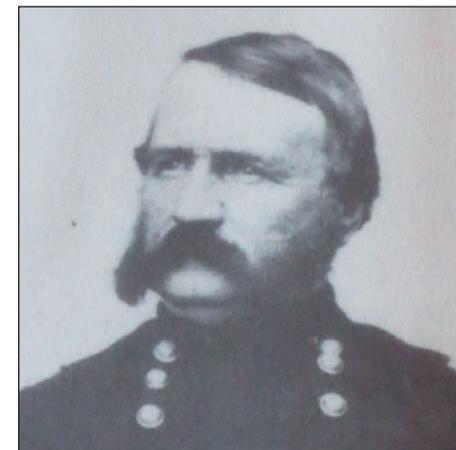


Fig. 12. Emory during U.S. Civil War.

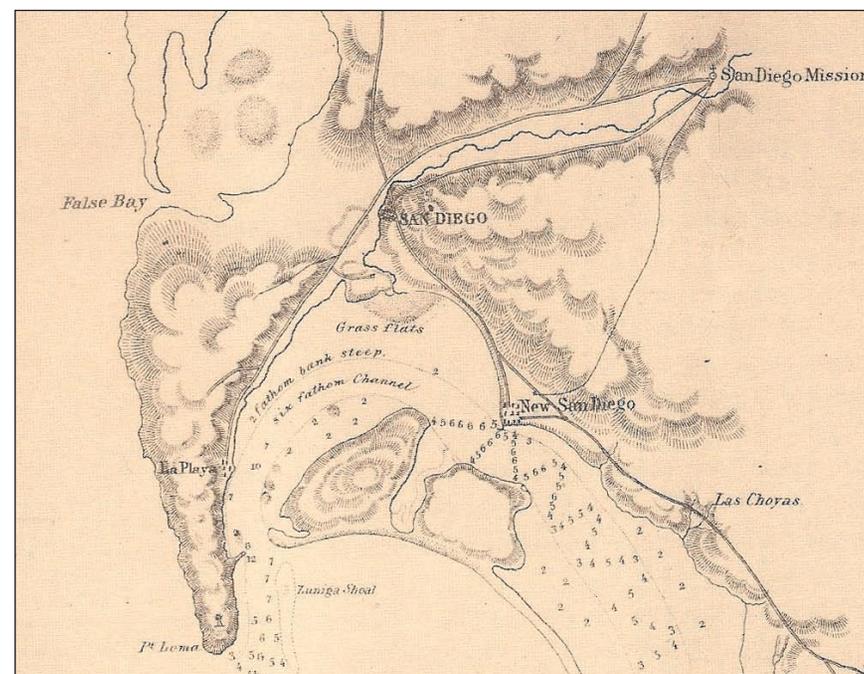


Figure 13. Excerpt from Andrew Gray's 1849 map of San Diego Bay.

Charles Christopher Parry, 1849-51

Among key staff reporting to Emory was a 26-year old medical doctor from upstate New York, Dr. Charles C. Parry (1823-1890) (**Figures 1, 14**). Parry acted as the Commission's surgeon, botanist and geologist.

Earlier I mentioned the book *San Diego Flora* published in 2014 titled *Parry's California Notebooks, 1849-51*. It is an annotated transcription of the detailed notes Parry kept during his nearly two years in our region. It also includes letters from those months that Parry wrote to John Torrey, his teacher at Columbia and a famous botanist and chemistry professor. Torrey recommended Parry for the Boundary Commission. If you know Torrey Pines State Reserve, you may know that Parry discovered San Diego's coastal pine in 1850 and named it for his mentor.

Parry was a bright young man who came west with the tide of 1849. Like Dana 14 years before him, he was equipped with quite a bit more formal education than most of his contemporaries. Because he was a scientist traveling overland, I call him "Dana with a microscope and a mule".

Let's take a moment to imagine that supreme moment in U.S. history around 1849 when the new territories of Texas, the Southwest, the Rocky Mountains, California and the Oregon Territory were all annexed by the United States. It was the stunning fulfillment of the nation's continental destiny. The government and public were very excited to know what kinds of resources had been acquired, where the good farmland was, what the Native Americans were like and where the roads and railways would go. We all know about the Gold Rush but there was of course much more to it. Men like Emory and Parry were tasked with observing, surveying, collecting and reporting. Back in the States, Torrey and others classified thousands of specimens collected from the new territories. Parry was one of Torrey's most helpful collectors.

I will say just a few more words about Parry's *Notebooks*. There is of course much about the boundary, and a great deal of interest to botanists as he recorded the circumstances when he collected scores of plants new to science. But there is much beyond those topics. Parry wrote clearly and at times poetically and was a keen observer. He kept a full record of the Whipple expedition to and from the Colorado River in Fall 1849, when pioneers were making their way west and Indians adjusted to American expansion. He rode on a mule from San Diego to Monterey, describing the route, the places and the people. As surgeon for the Army he attended to enlisted men who drank, gambled and contracted syphilis. He lived for a time at Mission San Luis Rey and climbed Palomar Mountain when bears roamed the slopes. He explored widely in the mountains and desert; on one trip in 1850 he climbed Cuyamaca Peak then ate fresh venison and slept by a fire with a band of local Indians.

We also know from Parry's *Notebooks* that he happened to meet John Lawrence Le Conte (1825-1883) (**Figure 14**), the famous American entomologist, in San Diego in June 1850. Parry wrote that the two walked from Old Town to the scrub-covered flats of New Town to look at real estate. Le Conte had been the chemistry lab assistant for Professor Torrey back in New York when Parry was at medical school, so they were old friends; in San Diego both were in their mid-20s. Torrey had written to Parry that Le Conte was heading to California.

I am compelled to digress and tell of Le Conte's later brush with death. In February 1851 he was riding west along the Gila Trail with just a Mexican guide. About a hundred miles east of Yuma, Indians - possibly Apache - held them up and took all their possessions, including their horses. They were lucky to be left alive. Two days before his misfortune, Le Conte had passed the Oatman family, who also traveled alone. Near the location of Le Conte's hold-up the Oatmans were massacred, save two of the daughters. You may have heard the horrific story of 14-year old Olive Oatman, who managed to survive six years in captivity. She was later traded to the Mojave Indians and tattooed with vertical stripes on her chin. (I suppose in our society today people wish for such embellishment.) Le Conte was the last white stranger Olive saw before her long ordeal.

As ardent a botanical collector as Parry was, Le Conte surpassed him in entomology. He was the first to collect and identify thousands of insects, becoming the most important 19th.c. American entomologist. I do not know that he surveyed on Point Loma, however.

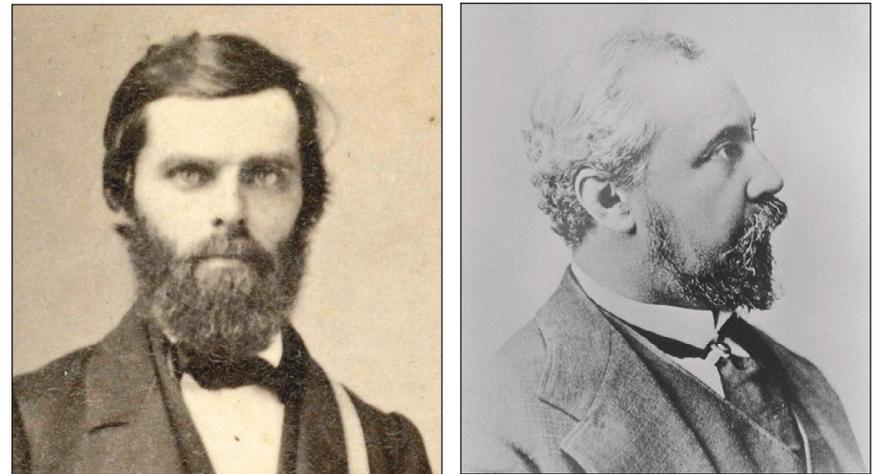


Figure 14. Charles Christopher Parry (L), surgeon, geologist and botanist, and John Lawrence Le Conte (R), chemist and entomologist, surveyed independently in San Diego in 1850. They had been students together of Prof. (Dr.) John Torrey at Columbia University in New York.

Parry did know Point Loma, and in keeping with our topic, we'll only look further at his hikes in this neighborhood. On December 29, 1849 he walked from Old Town to the ocean-side of Point Loma. One curious thing he noted were a number of fist-size patches of black "mineral pitch" similar to "dry tar, highly flammable" on rocks by the shore. Those would be traces of tar from natural offshore seeps; they are commonly seen today along the coast around Santa Barbara. You can also see small amounts today on rocks between Ocean Beach and Sunset Cliffs. I don't know if there may have been more such tar here two hundred years ago.

Parry's reference is a reminder that Americans were on the look-out for hydrocarbons for fuel - especially coal. In fact Parry discovered the Torrey Pine while evaluating a coal seam that a colleague had seen in the cliffs at Del Mar. Steamships required large amounts of coal; the fuel had to be sourced and shipped from thousands of miles away and stockpiled at Pacific ports. **Figure 15** is a period rendering of the S.S. *California*, one of the first steamships to operate on the west coast; Parry sailed on it.

Six months after his first hike on Point Loma, on June 5, 1850 Parry walked to an area of Ocean Beach he described as "sand hills overlooking the sea". He was looking for the Sea Dahlia that Nuttall had discovered. He found it and a number of other native plants adapted to sandy seaside conditions. Today it is easy to forget that miles around False Bay including much of Ocean Beach were low-lying, wind-swept dunes.



Figure 15. The U.S. steamship *California* began operating on the Pacific coast in 1849; Parry sailed on it. In the painting it aids a capsized boat.

Finally, on March 4, 1851, Parry went down to La Playa with his trunk and all his boxes expecting to board a scheduled steamship to Panama. The steamer didn't show until March 8 – four days later.

While waiting around La Playa he climbed to the top of Point Loma just as Menzies, Nuttall and Hinds all had. He recorded seeing Lemonade-berry and many other shrubs that Nuttall first discovered. **Figure 16** is a view of the coastal scrub and chaparral on the hill above La Playa; Lemonade-berry blankets the foreground.

Parry also mentioned an effort to bore an "Artesian well" at La Playa. "They have reached a depth of 200 feet", he wrote, with water in the hole to the last 35 feet. That was surely the deepest well yet on Point Loma.

On March 7, feeling dejected, Parry went back to Old Town. He was sure the steamer had skipped San Diego. But next morning he heard "the report of two guns" announcing its arrival. He rushed to La Playa and barely got on board. The captain had delayed sailing to load some extra beef. Parry's *Notebooks* goes on to describe stops in Mazatlán and Acapulco.

With Parry's departure we come to the end of our period of scientific exploration. In the ensuing decades transportation to and from California steadily improved. The Army helped secure overland routes, and railroads were set in motion. As more ships traveled to and from Panama, the road across the Isthmus improved.

After all that, many doctors and scientists moved to the Golden State.



Figure 16. Coastal scrub and chaparral habitats above La Playa, Naval Base Point Loma. Parry and others hiked in this area 200 years ago.