County of Nevada
State of California

Nevada County Historical Landmarks Commission
Application for Registration of Historical Landmark

• Name of proposed landmark: Mount Lola 1870s US Coast and Geodetic Survey Remnants.

Location, including Assessor's Parcel Number

- UTM: 10S 726783E 4368145N
- Lat/Long: 39.4330,-120.36505
- USGS 7.5' Quadrangle Independence Lake, CA T18N/R14E, Section 11

Name of applicant

• Nevada County Historical Landmarks Commission

Address

• Nevada County Historical Landmarks Commission, C/O Clerk of the Board 950 Maidu Ave PO Box 599002, Nevada City CA 95959-7902
• Home or work phone_[redacted] cell phone__[redacted]

Name and address of owner upon whose property proposed landmark is located if owner is not applicant:

Tahoe National Forest, 631 Coyote Street
Nevada City, CA 95959
United States (530) 256-4531

Sierraville Ranger District 317 South Lincoln St.
PO Box 95
Sierraville, CA 96126

I consent to this application.

Owner's signature Date

Rachel Hutchinson
District Ranger
Sierraville Ranger District
Tahoe National Forest

Brief history and description of proposed landmark
(attach additional sheets as necessary)

In 1878 Professor George Davidson of the U.S. Coast and Geodetic Survey, began preparations for the massive quadrilateral observations involving Mounts Shasta, Lola, Helena, and several other high peaks in the western U.S. necessary to improve surveying. Anticipating the record-breaking lengths of the lines to be observed, he and his assistants went to the various mountain summits, with Davidson going to Mt. Lola to establish the heliotrope and theodolite station. On August 1, 1878 George Davidson used his heliotrope and successfully flashed the heliotrope located on Mt. Shasta 169 miles away. These and other observations made by Davidson and his team members using quadrilateral base lines, served as the primary triangulation method of surveying and mapping the west coast of the United States

Historically significant aspects or properties of proposed landmark

The station remnants observed on Mount Lola today are the original foundations for the heliotrope, theodolite and shelter that George Davidson used while waiting for wildfire smoke to clear for optimal viewing conditions on August 1, 1878. The present condition of the remnants of the rock pedestal and stone hut from which Davidson made his groundbreaking survey observations are still in amazingly well-preserved condition. In addition, the Mount Lola Heliotrope Station was re-occupied in August of 1924 to perform needed measurements of the distances land masses had moved in the Bay Area following the 1906 San Francisco earthquake.

How will the landmark be protected and maintained?

Mount Lola summit is one of the sought after destinations of serious outdoor enthusiasts. It is in a remote area of the Tahoe National Forest and can only be reached by hiking or mountain bike over several miles. Thankfully, this user group is historically and environmentally conscious and cares for the landscape. The historic remnants appear to be in very good condition with little to no vandalism observed, reflecting respectful visitation use over the years. In addition, the Nevada County Historical Landmarks Commission will explain in its publications and on line presence, the historical significance of the rock foundations as well as the need to for protection, making visitors aware of the significance and fragility of the landmark.

Brief history and description of proposed landmark
(attach additional sheets as necessary)

In 1878 Professor George Davidson of the U.S. Coast and Geodetic Survey, began preparations for the massive quadrilateral observations involving Mounts Shasta, Lola, Helena, and several other high peaks in the western U.S. necessary to improve surveying. Anticipating the record-breaking lengths of the lines to be observed, he and his assistants went to the various mountain summits, with Davidson going to Mt. Lola to establish the heliotrope and theodolite station. On August 1, 1878 George Davidson used his heliotrope and successfully flashed the heliotrope located on Mt. Shasta 169 miles away. These and other observations made by Davidson and his team members using quadrilateral base lines, served as the primary triangulation method of surveying and mapping the west coast of the United States

Historically significant aspects or properties of proposed landmark

The station remnants observed on Mount Lola today are the original foundations for the heliotrope, theodolite and shelter that George Davidson used while waiting for wildfire smoke to clear for optimal viewing conditions on August 1, 1878. The present condition of the remnants of the rock pedestal and stone hut from which Davidson made his groundbreaking survey observations are still in amazingly well-preserved condition. In addition, the Mount Lola Heliotrope Station was re-occupied in August of 1924 to perform needed measurements of the distances land masses had moved in the Bay Area following the 1906 San Francisco earthquake.

How will the landmark be protected and maintained?

Mount Lola summit is one of the sought after destinations of serious outdoor enthusiasts. It is in a remote area of the Tahoe National Forest and can only be reached by hiking or mountain bike over several miles. Thankfully, this user group is historically and environmentally conscious and cares for the landscape. The historic remnants appear to be in very good condition with little to no vandalism observed, reflecting respectful visitation use over the years. In addition, the Nevada County Historical Landmarks Commission will explain in its publications and on line presence, the historical significance of the rock foundations as well as the need to for protection, making visitors aware of the significance and fragility of the landmark.

as well as the need to for protection, making visitors aware of the significance and fragility of the landmark.

Bibliography. Cite or attach available books, records, articles or other materials pertaining to the proposed landmark.

Books and articles:

Davenport, Charles B. "George Davidson, 1825-1911." *Biographical Memoirs,* Volume XVIII, Ninth Memoir. Washington, D.C.: National Academy of Sciences, 1937.

Davidson, George. *Coast Pilot, California, Oregon and Washington, Fourth Edition.* Washington, D.C.: Government Printing Office, 1889.

Choy, Steve "George Davidson (1825-1911): Pioneer Scientist and Surveyor" California Sea Grant Fellow Monterey Bay National Marine Sanctuary Newsletter

Lewis, Oscar, "George Davidson, Pioneer West Coast Scientist." University of California Press, Berkeley, 1954

Historical or civil records: (e.g., ownership, assessments etc.)

USFS records, Army Corps Survey records (if they exist, from 1946 survey)

Other: (e.g. photographs, prints or drawings. Please list and attach separately)

See attached report of August 2024 prepared by Historical Landmarks Commissioner, Chuck Scimeca

CJ Scimeca 11/10/2024

Applicant's signature Date

Chuck Scimeca

Nevada County Historical Landmarks Commissioner, District 4

==========

Mount Lola Heliotrope Foundation Remnants, Nevada County Historical Landmark Proposed Designation

By Chuck Scimeca, Nevada County Historical Landmarks Commissioner

August 2024

Mt. Lola Summit Foundations of Heliotrope Pedestal

Atop the highest peak in Nevada County, Mt. Lola at 9,142 feet, is a stacked rock enclosure that includes a mortared rock pedestal that once supported a heliotrope, an arrangement of mirrors, used by surveyors in the late 19th century for reflecting sunlight from a distant point at high elevation to an observation station.

In the mid 1870s the newly named Coast and Geodetic Survey was surveying the West from high mountain summits by triangulation, using very large, surveyed figures that became known as "Davidson's Quadrilaterals[1]" with sides ranging from 57 to 192 miles in length. To do this work, in October of 1875, A. F. Rodgers of the the Geodetic Survey, the first scientist sent from the Survey to ascend Mt. Shasta, with the assistance of John Muir acting as guide, placed a heliotrope station at the summit. This was done in preparation for future heliotrope survey work to be

[1] In 1878, Professor George Davidson measured the Mt. Lola and Mt Helena base line and twice measured the Yolo Base Line in 1881. These geodesic base lines formed the foundation of triangulating distances in California and the other west coast states. At that time, these were the longest base lines attempted in surveying operations, and the system of triangulation directly connected with this surveying method were called in his honor the **"Davidson quadrilaterals."**

completed by Professor George Davidson just a few years later.

George Davidson's 1878 Expedition to Mount Lola

In August of 1878, three years after Augustus F. Rodgers placed the first heliotrope on Mount Shasta, [2] Professor George Davidson of the US Coast and Geodetic Survey put together a team of men on the three mountain tops, Mount Shasta, Mount Helena, and himself on Mount Lola summit. He began his triangulation work measuring the reflections from heliotropes on each mountain top with a theodolite (a telescope specially mounted on a protracting degree scale). The primary reason for the placement of the heliotropes was to begin the survey of the 39th Parallel, the first arc of triangulation to span the continent.[3]

The experiment was successful, and "Davidson Quadrilaterals," named in his honor, were established. Mt. Shasta to Mt. Helena 192 miles, Mt. Lola to Mt. Shasta 169 miles and Mt. Lola to Mt. Helena 133 miles with Mt. Lola to Mt. Shasta being one of the bases of the triangle. Professor George Davidson's use of quadrilateral base lines served as the primary triangulation method surveying the west coast of the United States until the advent of GPS satellite navigation in the mid 1980s. With GPS becoming operational, the use of heliotropes and theodolites were no longer needed. In fact, "Little to no geodetic work (using these tools) has been done since 1985."[4]

George Davidson was the lead surveyor for the 1878 expedition. He set up his heliotrope and theodolite[5] on Mt. Lola to make his observations and Benjamin Colonna, Davidson's assistant, was chosen to take survey observations from Mt. Shasta. From Benjamin Colonna's journal on August 1, 1878, he described the exciting event:

> "At sunrise, I turned my telescope in the direction of Mt. Lola, and there was the heliotrope, 169 miles off, shining like a star of the first magnitude. I gave a few flashes from my own, and they were at once answered by flashes from Lola. Then, turning my telescope in the direction of Mt.

---

[2] Theberge, Albert, "The Longest Line" article American Surveyor October 2012 page 2-3.

[3] Theberge, Albert, "Pioneer Surveyor George Davidson" Hydro International October 2015, article page 2.

[4] Dracup, Joseph H., "Triumphs of the Mountain Men" History of the Geodetic Survey Part III, p 39 Sept. 1995.

[5] A theodolite is a six-inch telescope used by the Coast and Geodetic Survey in the late 19th century. NOAA 200th Celebration newsletter.

> Helena, there, too was a heliotrope, shining as prettily as the one at Lola. My joy was very great; for the successful accomplishment of my mission was now secured."[6]

The station remnants observed on Mount Lola today are the original foundations for the heliotrope, theodolite and shelter that George Davidson used while waiting for wildfire smoke to clear for optimal viewing conditions on August 1, 1878. The present condition of the remnant rock pedestal and stone hut that Davidson made his groundbreaking survey observations from are still in amazingly well-preserved condition.

Establishing Remote Observation Stations

Professor George Davidson of the US Coast and Geodetic Survey, began preparations for the massive quadrilateral observations involving Mounts Shasta, Lola, Helena, and several other high peaks in the western U.S. Anticipating the record-breaking lengths of the lines to be observed, Davidson made a study of the requisite sizes of heliotropes, determining that a reflecting surface of 77.5 square inches along with the needed mounting platforms to see flashes over distances of near 200 miles. With this knowledge, he and his assistants went to the various mountain summits to establish the heliotrope and theodolite stations. This was no easy task. Deep snow, unstable boulders, handling difficult pack animals and chronic altitude sickness were just a few of the obstacles that needed to be overcome by the survey crews to established stations on mountain peaks reaching over 14,000 feet in elevation.[7]

---

[6] Colonna, Benjamin, "Nine Days on the Summit of Mt. Shasta" The Californian March 1880.

[7] NOAA 200 Years Celebration of Science, Service and Stewardship 2007, article Heliotrope.

George Davidson and his survey party (left of center) preparing to leave Lake Independence on the Mt. Lola foot trail in preparation for observations using the heliotrope 1878.[8] The pack animals can be seen just right of center.

George Davidson's heliotrope rock hut just left of center can be seen on Mt Lola summit in this 1878 photograph.[9]

---

[8] Watkins, Carleton 1829-1916, photographer, photo 1879. Mammoth Collection Berkeley Library Digital Collections

[9] Watkins, Carleton 1829-1916, photographer, photo 1879. Mammoth Collection Berkeley Library Digital Collections

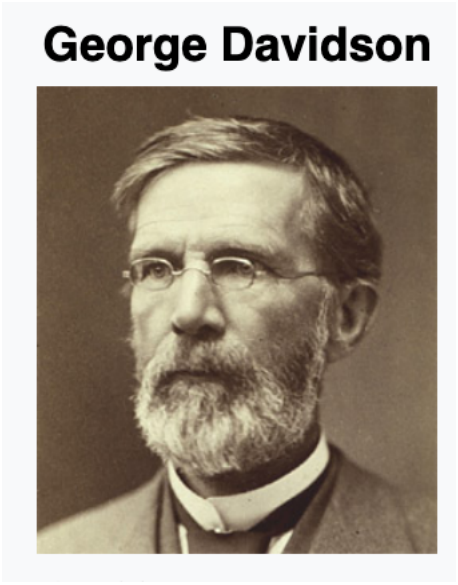
Heliotrope and Theodolite

A heliotrope and theodolite, such as the ones shown in this image, were composed of one or more mirrors that reflected the sun's rays with the theodolite (telescope) in the center. When taking observations over long distances, the reflection off the heliotrope provided a target on which an observer could sight his theodolite.

Possible photo of Benjamin Colonna on Mt Shasta aiming heliotrope toward George Davidson on Mt. Lola 1878. (Image courtesy of NOAA, B.A. Colonna Album.)

Theodolite (surveying telescope)

This six-inch theodolite was used by the Coast and Geodetic Survey in the mid to late 19th century. With its 11-inch telescope, this instrument was tiny next to earlier theodolites.



Davidson, leader of the 1878 expedition.
Davidson Quadrilaterals,
"One of his greatest achievements."[10]


Benjamin Colonna

Benjamin Colonna, assistant to Davidson on Mount Shasta.

[10] Oscar, Lewis "George Davidson, Pioneer West Coast Scientist" University of Ca Press 1954, page 97.

The following series of photographs were taken during a field trip to Mount Lola during October 3, 2021[11]

Chuck Scimeca standing by rock pedestal.

Opposite view rock wall, hiking poles 3’11”

[11] The six photographs on this page and the next two pages submitted by the author, Chuck Scimeca

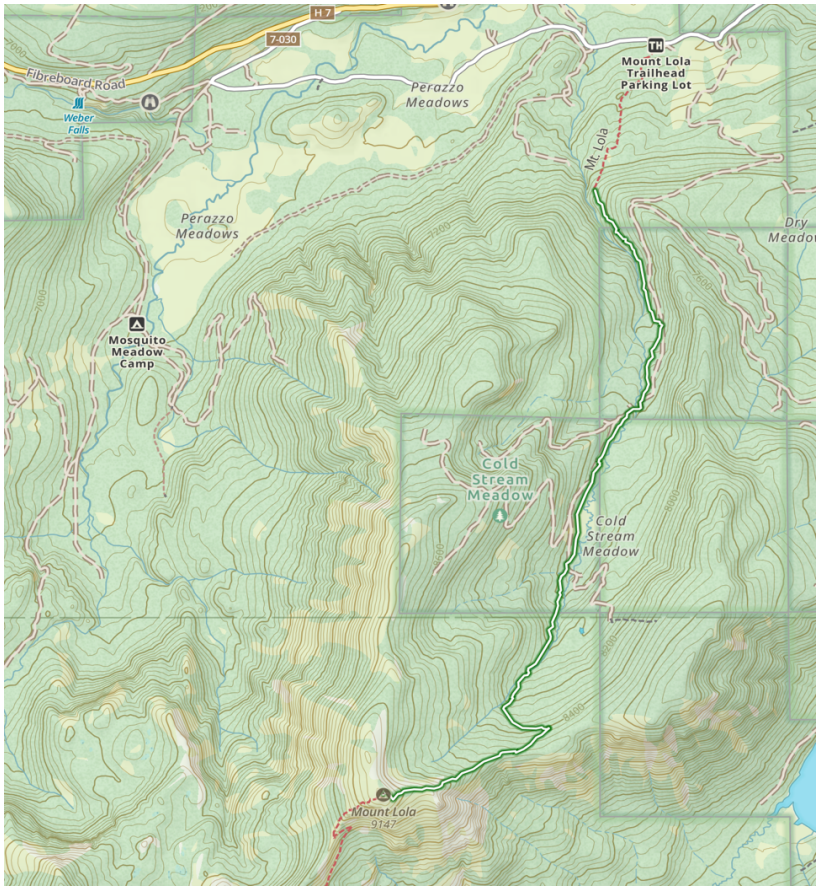
Two brick pedestals approx. 50 ft east of rock pedestal and wall

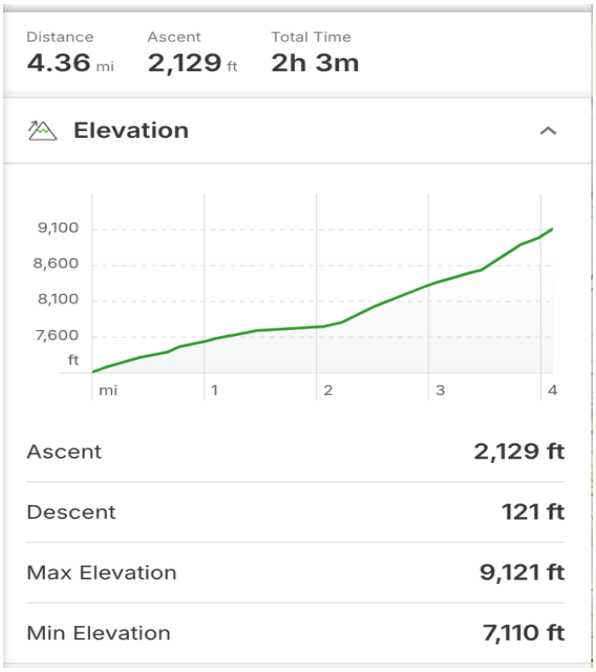
Hikers approaching from the east trail, Independence Lake direction.

Mount Lola Control Station survey mark by Army Corps of Engineers, 1946

Nevada County Landmark Commissioner and Consultant,
Chuck Scimeca & Torben Eriksen

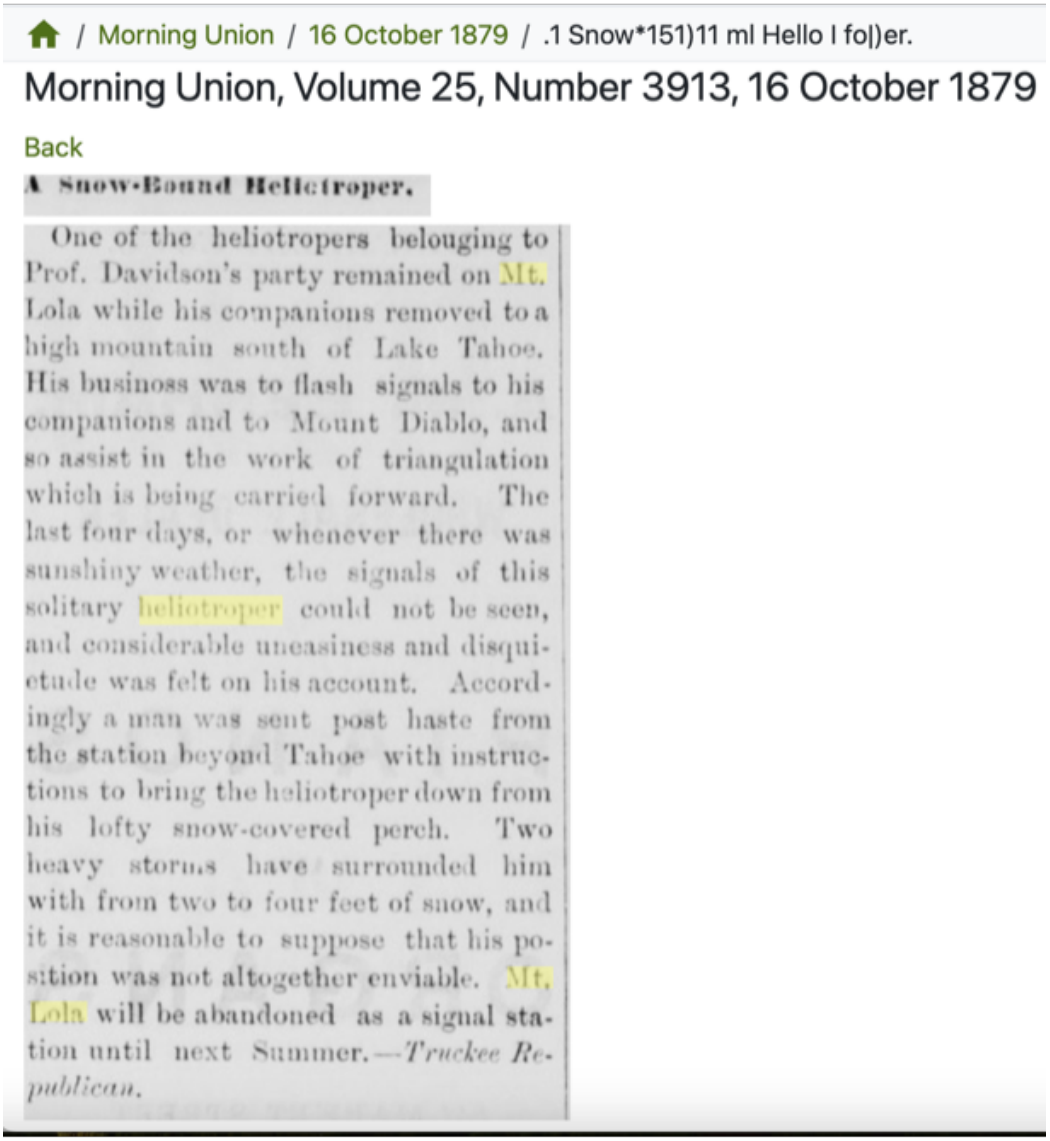
Hike to Mount Lola from Independence Rd. Trail Head





Newspaper Articles

The article below mentions that Professor Davidson a year after his survey measurements on Mount Lola returned in October of 1879 to continue his triangulations, but this time, he sighted on Mount Diablo. However, he ran into early snows and would need to continue his observations the following season.



/ Morning Union / 16 October 1879 / .1 Snow*151)11 ml Hello I fo|)er.

Morning Union, Volume 25, Number 3913, 16 October 1879

Back

A Snow-Bound Heliotroper.

One of the heliotropers belonging to Prof. Davidson's party remained on Mt. Lola while his companions removed to a high mountain south of Lake Tahoe. His business was to flash signals to his companions and to Mount Diablo, and so assist in the work of triangulation which is being carried forward. The last four days, or whenever there was sunshiny weather, the signals of this solitary heliotroper could not be seen, and considerable uneasiness and disquietude was felt on his account. Accordingly a man was sent post haste from the station beyond Tahoe with instructions to bring the heliotroper down from his lofty snow-covered perch. Two heavy storms have surrounded him with from two to four feet of snow, and it is reasonable to suppose that his position was not altogether enviable. Mt. Lola will be abandoned as a signal station until next Summer.—*Truckee Republican.*

The San Francisco Examiner (San Francisco, California) · Sun, Aug 24, 1924 · Page 33
Downloaded on Aug 6, 2024

THE SAN FRANCISCO EXAMINER: SUNDAY, AUGUST 24, 1924 K 3

EARTH MOVEMENTS DETECTED BY ACCURATE MEASUREMENT

Point Reyes Light Has Moved North 12 Feet and Mt. Tamalpais Slips 5 Feet To South; Other Changes

By DR. WILLIAM BOWIE
Chief of the Division of Geodesy

GEODETIC SURVEY KEEPS TAB ON QUAKES

Lick Observatory and Loma Prieta Peak Also Listed With Landmarks That Have Shifted Positions

Upper left, Electric signal lamp. A lamp of this kind is placed directly over each triangulation station on which observations are being made and is pointed toward the observer. The lamp is so constructed that nearly all the light is concentrated in a small beam of great intensity and it may be seen at great distances if accurately pointed.

Right, Triangulation signal. In flat country high towers must be used to overcome the curvature of the earth and make the triangulation stations intervisible.

Lower, Motor trucks used to transport the party and equipment. In mountainous country triangulation stations may be from 10 to 100 miles apart and are usually at considerable distances from the nearest railroad.

THE GAMBLING TURK

MT LOLA 1924

GEORGE DAVIDSON

Pioneer Surveyor

George Davidson, whose name is indelibly connected with the survey of the West Coast of the United States, spent most of the sixty-one years between 1850 and 1911 in service to the citizens of California, Oregon, Washington, and Alaska. He was born in Nottingham, England, on 9 May 1825 and emigrated with his parents to the United States in 1832. They settled in Philadelphia where a few years later he became a student of Alexander Dallas Bache, then principal of the Philadelphia Central High School. In 1843, Bache was appointed second superintendent of the United States Coast Survey. Two years later he selected Davidson to become his personal clerk in the Washington, D.C. office of the Coast Survey. Davidson was not happy with such a sedentary existence as he modified his address on many letters home with the notation 'Washington D(reary) C(ity)'. It was obvious he was ready to head for the field.

In 1846, Bache sent him to serve with Assistant Robert Fauntleroy on the Gulf Coast of the United States. Fauntleroy befriended the young man and taught him the techniques of geodesy in the field. During the winter months he took Davidson to his home in New Harmony, Indiana, a colony of intellectuals and social experimenters seeking a utopian society. Here Davidson met his future wife, Ellinor Fauntleroy, although they did not marry until 1858. In 1849, Fauntleroy died of yellow fever while working on the Texas coast leaving George grief-stricken for his mentor. The same year, the Coast Survey had sent survey crews to California. Because of the gold strike, no labour was to be found on the West Coast, and the first crews to arrive accomplished little work. Because of this, Superintendent Bache decided to send a crew of young men of great energy with 'record to make' to the West Coast. These men would undertake "for one year to do any duty, however hard or manual, incident to the survey on the western coast." George Davidson, James Lawson, and two others volunteered for this arduous assignment.

They arrived in San Francisco on 19 June and within three weeks were headed back south to begin their work. Point Conception, known as 'The Hatteras of the Pacific' was selected as their first location for which to determine an accurate astronomic position. Over the next year, he made astronomic observations near Monterey and San Diego in California, then north to Cape Disappointment at the Columbia River entrance. On the return from Cape Disappointment, Davidson was left off at Port Orford, Oregon Territory, where he conducted observations and remained until January 1852. While there he was "living on lean salmon until you feel scaly, turn colour and wag your tail." When returning to San Francisco he was assigned to the party of Lieutenant James Alden, USN, on the Coast Survey Steamer Active and proceeded south landing at nine locations to determine their astronomic positions. Upon return to San Francisco, he and Lawson, who had been working in the vicinity of San Diego, proceeded on the Active north to Neah Bay, near Cape Flattery in Washington Territory. The seeds of dissension between Davidson and Alden were sown on these trips and they came to hate each other over the next year, each heaping invective upon each other's heads in letters to the Superintendent of the Coast Survey. This resulted in Davidson acquiring a vessel which he named the Robert H. Fauntleroy in 1854.

After the Active discharged Davidson and his party of nine men at Neah Bay, his survey party encountered hostility from the Makah tribe and their relatives across the Straits of Juan de Fuca on Vancouver Island. Although the Makahs were afraid of retribution from the United States government if they attacked the survey party, their neighbours from across the strait did not share the same fear. A fleet of large canoes containing at least 150 Indians came across the strait and anchored in the kelp off Neah Bay. The Coast Survey party built breastworks and loaded all available weapons such that each man could shoot 60 rounds without reloading. No attack ensued as the Indian scouts always found an armed guard.

That Davidson and other members of the party were crack shots and courageous to a fault, sometimes exceeding foolhardiness, is illustrated by the following story told by James Lawson. A few years after the Neah Bay incident and when Davidson and his party were engaged in helping survey the boundary between Canada and the US in the Puget Sound area, he was in Victoria, British Columbia. While there they took to bragging about American marksmanship to the British colonial officials. The following day, while on a hunt with the

British, an American shot and wounded a mountain lion. Davidson, who had been running ahead, dropped a rifle cartridge in his shotgun, and, as the lion was dropping from the first shot, he shot it through the heart. In the elation of the moment, he took off his stovepipe hat and , placed it on the barrels of his shotgun, and then placed this in front of his face so that the brim of his hat just touched the crown of his head. He shouted to his fellow American to shoot at the hat. The other fellow did, piercing the hat and spitting the barrels of the shotgun about two inches above Davidson's head. Lawson reported that the "astonishment of the Englishmen was inexpressible" and upon coming up to Davidson "forgetting he was a superior officer" called him a "d____d fool."

Besides the dangers of hostile natives and one's own foolhardiness, the work was dangerous. Davidson made over 40 small boat surf landings on a rock bound stormy coast during his career in spite of never learning to swim. Besides sounding out many of the channels and entrances to the small harbours of the West Coast, he also spent months in mountain triangulation work packing into places that had hardly been seen or visited by anyone prior to his work. All of this work had the potential for serious accidents as illustrated by at least six men drowning as boats overturned and were swamped between 1852 and 1867. Concurrent with this dangerous work, Davidson chose the sites for many Pacific coast lighthouses and in 1858 wrote The Directory of the Pacific Coast, the forerunner of the Coast Survey Coast Pilots. His 1889 edition of the Coast Pilot of California, Oregon, and Washington became the authoritative list of sailing directions for West Coast mariners as well as tracing the origin of numerous feature names on the coast and recording the history of exploration since the early Spanish adventurers. It also contained over 400 coastal views prior to the encroachment of civilisation. This document is considered one of the great historic works detailing the geography and early exploration of the western margin of North America.

Many consider the measurement of the Yolo Baseline in the Sacramento Valley and the Los Angeles Baseline to have been Davidson's crowning achievements. Both were over 11 miles in length and measured to the then unprecedented accuracy of better that one part in a million. The Yolo Baseline served as the starting point for the great geometric figures on the surface of the earth that became known as the Davidson Quadrilaterals upon which the primary triangulation of the Pacific coast states was based. This work overshadowed Davidson's earlier direction of the West Coast beginnings of the 39th Parallel Survey. The great triangle bounded by Roundtop in the central Sierra Nevada to Mount Shasta to Mount Helena had some of the longest lines ever measured in classical geodetic work including the 192 mile line from Mount Shasta to Mount Helena.

Davidson led an extraordinarily active professional life. He was associated with the University of California from 1870 until his death in 1911. He served as Honorary Professor of Astronomy and Geodesy, a Regent of the University from 1877 to 1885, Professor of Geography from 1898 to 1905, and Professor Emeritus until his death. He received an honorary degree of LLD from the University in 1910. He was elected president of the California Academy of Sciences in 1871 and served in that capacity for sixteen years. In 1867, he headed the party making a geographical reconnaissance of Alaska and his report helped sway Congress to purchase 'Russian America'. In 1872, he was appointed one of three Commissioners of Irrigation of California and became recognised worldwide as an authority on irrigation problems. He was instrumental in helping establish the Lick Observatory. He survived the San Francisco earthquake of 1906 and helped found and became the first president of the Pacific Seismological Society. Davidson became the most honoured American for his scientific work in the nineteenth century. He was elected to membership in such societies as the Royal Astronomical Society, the American Philosophical Society, the Bureau des Longitudes of France and the United States National Academy of Sciences.

Surprisingly, and to the shame of those involved, Davidson was dismissed from the Survey in 1895 by William Ward Duffield, an ignorant political appointee who was made head of the Coast and Geodetic Survey during the second administration of Grover Cleveland. The uproar that ensued from the scientific community forced Duffield's resignation in 1897.

George Davidson combined the skills of hydrographer, geodesist, geographer, astronomer, seismologist, civil engineer, hydrologist, historian, native American ethnographer and teacher for the citizens of his adopted land as well as the world scientific community. In 1900, at the age of 75, he commented "… I continue ceaselessly to work because I love it, because I have the constitution to stand it, and because I believe that I can add something to human knowledge and especially benefit the young." His services to the western coast are commemorated by Davidson Seamount off the California coast, the first undersea feature to be named with the generic term 'seamount'; Mount Davidson in San Francisco; Mount Davidson, Nevada; and Mount Davidson, Davidson Mountains, Davidson Inlet, Davidson Bank, and Davidson Glacier, Alaska. He was an extraordinary man, the likes of which few of us will ever see in our lifetimes.

---

https://www.hydro-international.com/content/article/pioneer-surveyor

---

The following pages include a Mt. Lola article from Hank Meals' blog, "Yuba Trails and Tales." Hank is a respected historian and writer who has a detailed knowledge of Nevada County's backcountry and especially of Mt. Lola.

Yuba Trails and Tales

Thursday, September 19, 2019, by Hank Meals
Mt. Lola / North-Central Sierra Nevada

"Exercise, not philosophically and with religious gravity undertaken, but with the wild and romping activities of a spirited girl who runs up and down as if her veins were full of wine." - Lola Montez

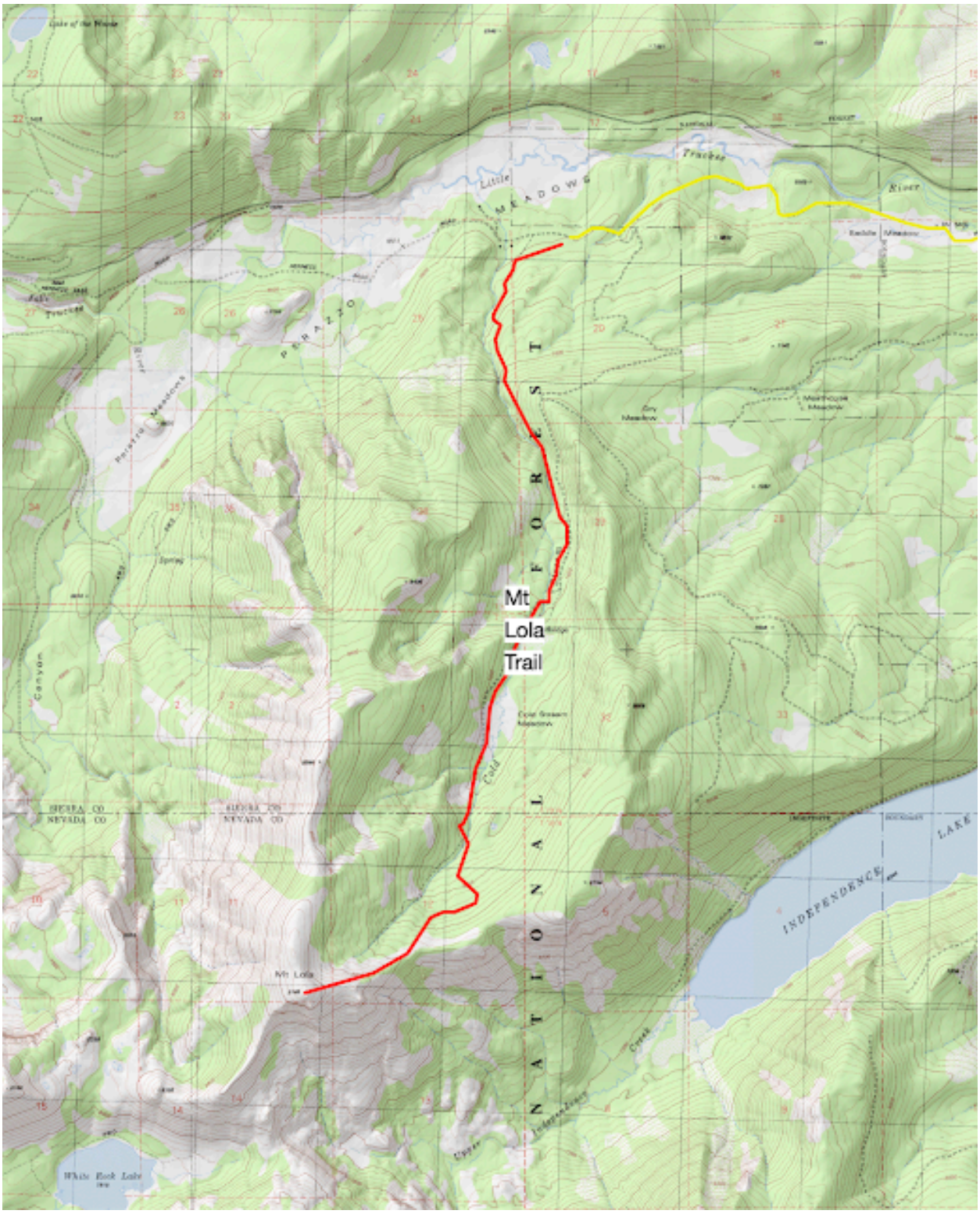
THE MOUNT LOLA TRAIL

It's mid-September and there's a light rain in the Deer Creek watershed this morning. Pluviophiles are ecstatic and the aroma of moist and earthy petrichor is positively swoony – meanwhile it's snowing on Mt Lola.

A few days ago it was warm and we hiked to the summit from the east side so that's what this blog will be about. Mount Lola, at 9,143 feet is located in the extreme northeast of the South Yuba watershed and is its highest peak.
Immediately below and to the west is White Rock Lake. On the east and north sides of Mount Lola, Independence Creek and Coldstream Creek flow to the Truckee River.

How to get there:

To get there take Highway 89 north from Truckee for 17 miles to the Jackson Meadow Road. Travel west for 2 miles to the well-marked Independence Lake turnoff. Drive 0.7 mile and cross the bridge over the Little Truckee River, then take the first right.
This road is a segment of the historic Henness Pass Road. Drive 3.2 miles to the clearly marked trailhead and parking lot at Perrazzo Meadows.



This 5.4 mile long trail (one way) ascends Cold Stream Creek, a tributary of the Little Truckee River. At the lower segment there is some logging evidence but there are also wildflowers and beautiful Cold Stream Meadow.

Above the meadow the slope becomes steeper climbing through stands of red fir and mountain hemlock. Right alongside the trail is the largest red fir that I've ever seen.

Coldstream Meadow

From the eastside Mount Lola is a 2,500-foot climb, and worth it. As for degree of difficulty, well that depends. This hike was an epiphany for me – when I last hiked this trail three years-ago I don't remember it being particularly strenuous but now that I'm older (much older that most people reading this) it was difficult for me. Men don't want to admit that their performance is fading, but for me there was no denying it, and I had the realization that I might not do this hike again. While I was humbled by the mountain and my own mortality, it didn't diminish my experience, but my knees hurt. From now on I'll be factoring my own frailty into planning for future hikes. All things considered this is valuable information for keeping hiking pleasurable for as long as possible.

Coming up the East Side of Mt Lola

The views from the summit are fabulous. On a clear day you can see Mount Lassen to the northwest and the distinctive Sierra Buttes in the same direction but only 20 miles away on the North Yuba River. To the west are Grouse Ridge, Fall Creek Mountain and the Black Buttes in the Grouse Ridge Roadless Area. Looking south you can see Basin Peak and Castle Peaks, and along the summit continuing southward to Donner Pass and Tinker Knob. To the east is Mount Rose and to the northeast is Sierra Valley. At the base of Mount Lola is White Rock Lake to the southwest and Independence Lake to the east.

White Rock Lake is the highest body of water in the South Yuba watershed. Originally it was an aboriginal campsite, then in 1850 it was dammed when the water rights were claimed for gold mining. The Pacific Crest Trail passes just south of White Rock Lake where there is a 2 ½ mile spur trail that ascends about 1,300' to the top of Mt. Lola.

Dusk on Mt Lola. Looking southwest to White Rock Lake

SURVEY HISTORY

On the summit of Mount Lola you'll see a small rock structure and may wonder what it's doing here. In 1878 the newly named Coast and Geodetic Survey was surveying the west by triangulation, using very large constructs known as Davidson's Quadrilaterals with sides ranging from 57 to 142 miles in length. To do this work a station was established on Mount Shasta to measure the side between Mount Shasta and Mount Helena, which at about 192 miles would make it the longest triangulation line ever observed. The line Mount Lola to Mount Helena, one of the sides of Davidson's Quadrilaterals, 133 miles in length, was selected as the base for the triangle.

George Davidson was chosen to make the observations at Mount Lola and Benjamin Colonna was chosen for Mount Shasta. In his journal for August 1, 1878, Colonna described a momentous event:

At sunrise, I turned my telescope in the direction of MT LOLA, and there was the heliotrope, 169 miles off, shining like a star of the first magnitude. I gave a few flashes from my own, and they were at once answered by flashes from LOLA. Then turning my telescope in the direction of MT HELENA, there, too was a heliotrope, shining as prettily as the one at LOLA. My joy was very great; for the successful accomplishment of my mission was now secured.

In the center is the base of the heliotrope used in 1878

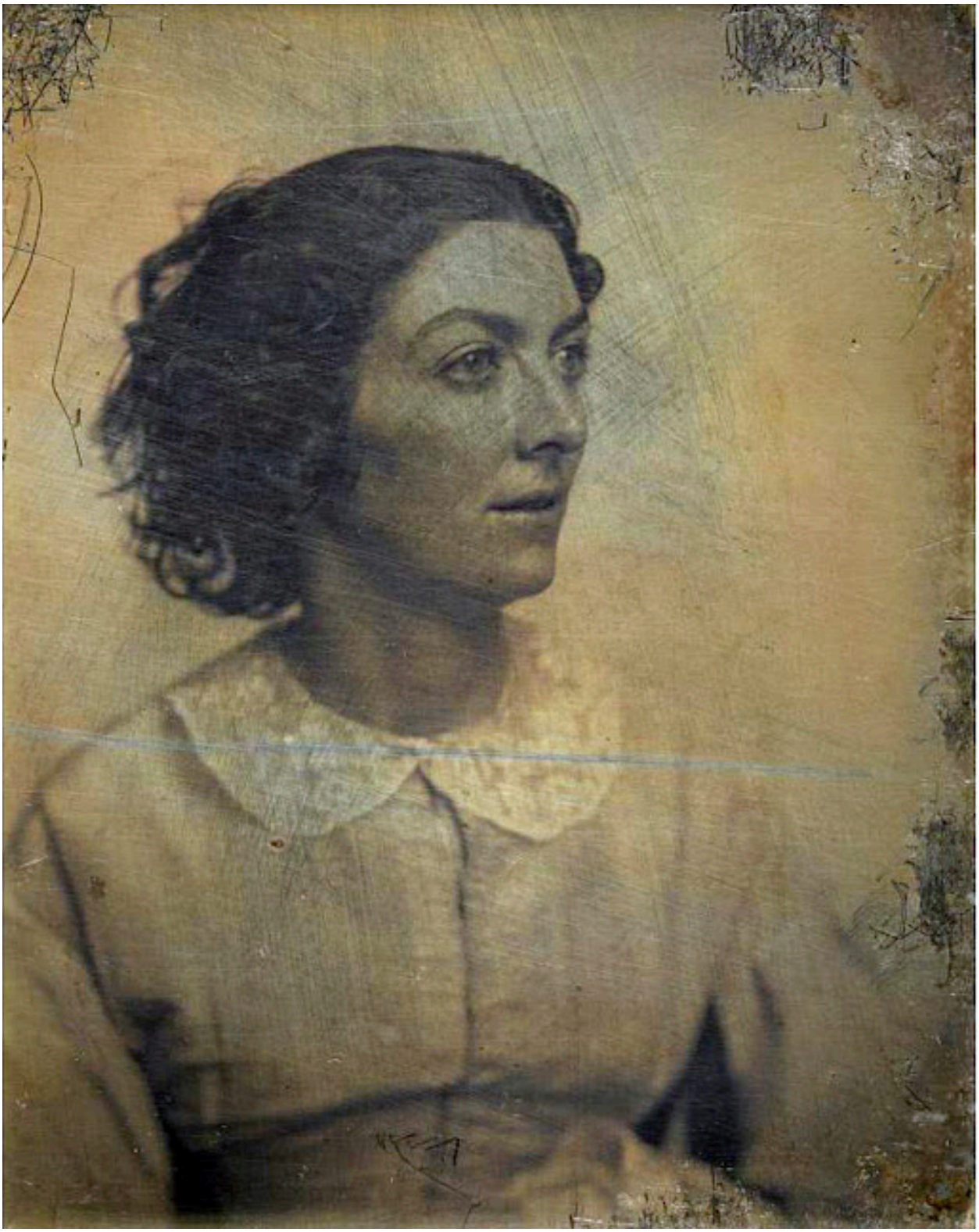
This series of flashes, through the wonders of trigonometry, allowed the team of surveyors to accurately calculate that the distance between Mount Shasta and Mount Helena was 192 miles. Colonna was ecstatic about besting the French, and wrote in his journal, "And the glory is ours; for America, and not Europe, can boast of the largest trigonometrical figures ever measured on the globe." So, these rock features are the foundation for the heliotrope and a shelter George Davidson used while waiting for optimal conditions in the summer of 1875. Positions held by Davidson include president of the California Academy of Sciences from 1871 to 1887, Honorary Professor of Geodesy and Astronomy, and Regent of the University of California from 1877 to 1885. He became the first professor of Geography at the University of California, Berkeley and was one of 182 charter members of the Sierra Club in 1892 and served as a member of its board of directors from 1894 to 1910. This bit of scientific history may or may not be of interest to you, but surely you want to know who Lola Montez was?

Lola Montez 1850
Photo by Southworth and Hawes

Mount Lola was named for the legendary Lola Montez, who was born in Ireland in 1821 and originally named Elizabeth Rosanna Gilbert. As part of a military family she spent her childhood in India and married for the first time at age 16, apparently to get back to Europe. After her first marriage she traveled to Spain and developed a persona as a dancer, named herself Lola Montez and toured northern Europe. She was, by all accounts, a mediocre dancer but what she lacked in talent she made up for in chutzpah. Her fiery temperament, audaciousness and ambition landed her in the company of Franz Liszt, Robert Peel (son of the English Prime Minister), the French newspaper editor Alexandre Dujarier, Marius Petipa (the creator of *Swan Lake* and *The Nutcracker*), the Earl of Malmesbury, the Count of Schleissen, Lord Brougham, Jung Bahadur (the Nepalese ambassador to London) and other less notable men.

In 1846 she traveled to Munich and became a dancer with the Bavarian Opera. When King Ludwig I of Bavaria saw her he wrote, "Today I saw Lola Montez dance. I am bewitched. In this Spanish woman alone have I found love and life." She thrived on scandal and she created enormous celebrity, even inspiring imitators. Some of her biographers claimed that Lola Montez garnered more press than Queen Victoria herself. King Ludwig was totally enthralled, while Lola shamelessly manipulated him. In August of 1847 he made her the Countess of Landsfeld, which assured her a salary, but the citizens of Munich were embarrassed by the foolishness of their King and distrusting of Montez. By 1848, under pressure from a growing revolutionary movement, Ludwig abdicated his throne and Lola fled Bavaria, alone.

From 1851 to 1853 she performed as a dancer and actress in the eastern United States. One of her biographers said that she received higher fees for her lectures than Charles Dickens who was on tour at the same time. Her most popular play was a trite, self-promotional story about her affair with King Ludwig. She then moved to San Francisco in May of 1853. While there she performed her suggestive "Spider Dance" in which she pretended to be attacked by spiders and searched for them in her clothing. Reviews of her performance were pretty bad, but they generated publicity, nevertheless. She married Patrick Hull in July and they moved to Grass Valley, California, in August.



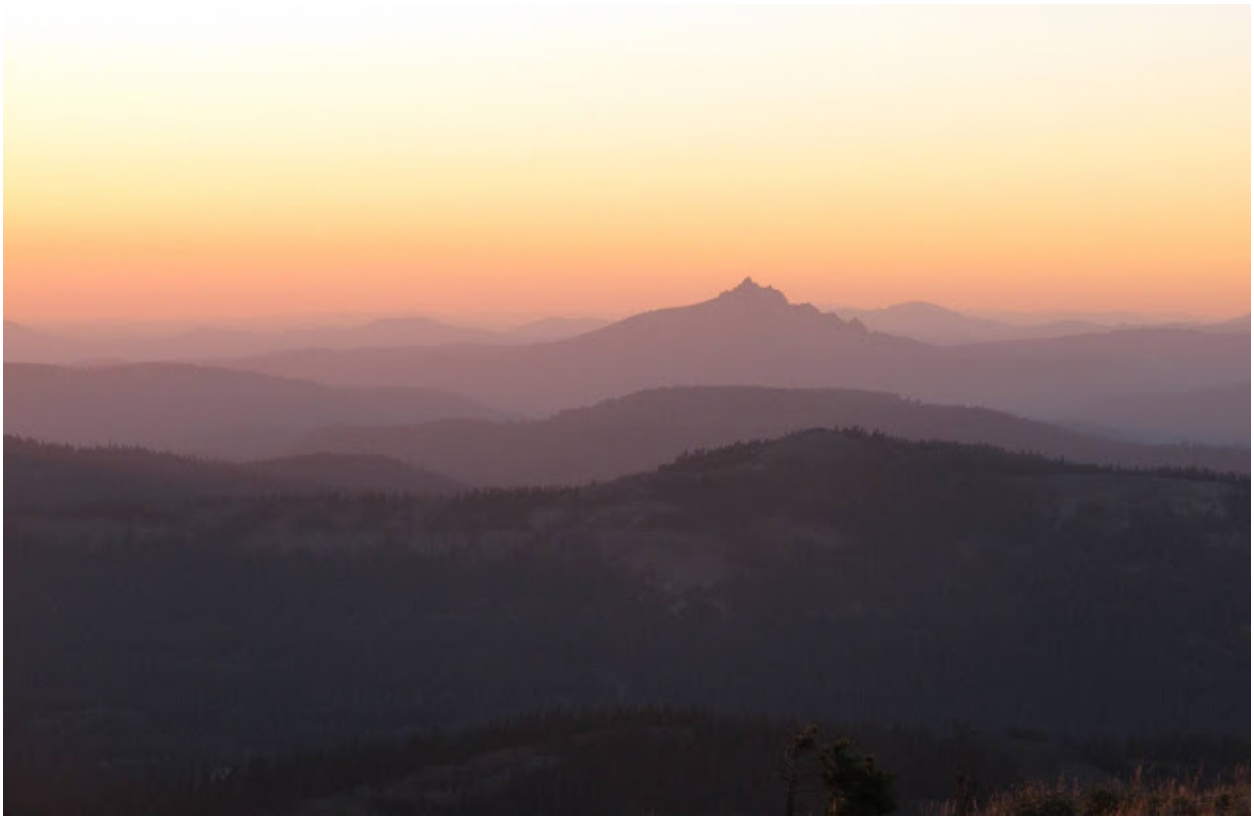
Lola Montez 1858
National Portrait Gallery – Smithsonian Institution
Photo by Henry Meade

Glamorous and boldly unconventional, Lola attracted an enthusiastic following based more on her cultivated persona and her beauty than on her talent – she definitely had her wild side. In the summer of 1854 one of the most famous camping trips of the era occurred in the vicinity of what would later become Mt Lola and Lola Montez Lakes. She, and some companions, left Grass Valley for a sojourn to Donner Summit and Truckee Meadows (now Reno, NV). The party, which included Alonzo Delano, famous humorist and Grass Valley's first city treasurer, set off with an animal pack train in mid-July and ran into difficulties after several rough days on the trail. The horse carrying the provisions bolted and dumped all their food in a stream. If that wasn't bad enough, the imperious Lola quarreled with the other campers and antagonized them to the point where many of them left in a huff.

While living in Grass Valley she held salons in which the local intelligentsia gathered to meet artists, actors, writers, entrepreneurs and adventurers. Her benefactor at this time was John Southwick, manager and part-owner of the Empire Mine. By the time she arrived in Grass Valley she had been married twice and had many amorous alliances. She was also fluent in several languages, was abreast of contemporary literary and artistic trends and mixed with Gautier, Alexander Dumas, George Sand, Walt Whitman and others. The salons at her house included rich feasts with champagne. Guests included, businessman Sam Brannan; US Supreme Court Justice Steven Field; William M. Stewart, later a U.S. senator from Nevada; the great Norwegian violist, Ole Bull and humorist Alonzo Delano, among many others. Biographer Ralph Freidman (*Lola Montez in Grass Valley*, 1951) commented, "…she was probably the least provincial person to ever reside in Grass Valley." When she left town in 1855, W.B. Ewer, editor of the Grass Valley Telegraph said "Lola is no ordinary person. She is possessed of an original mind, one decidedly intellectual and highly cultivated. She delights in change and excitement and is bound to create a sensation wherever she goes."

In May of 1855 Lola Montez and an actor named Augustus Noel Follin decided to take a theatre company to Australia where gold had recently been discovered. The foray created more scandal and notoriety but no wealth. In June of 1860, while living in New York, she suffered a stroke that resulted in partial paralysis. She then found religion, but contracted pneumonia and died in 1861 at the age of 42.

Lola Montez, despite her infamy, created her own myth and wrote herself into history by the force of her own personality. The many biographies written about her dwell on her outrageous behavior, but I'm sure she was also charming and interesting to be with. Unlike many other women in the Victorian era, who may have been notable because of their birth, or marriage, she invented herself. Lola Montez described herself best when she dedicated her 1858 book, *The Art of Beauty*, to "those who are not afraid of themselves, who trust so much in their souls that they dare to stand up in the might of their own individuality to meet the tidal currents of the world."



Dusk on Mt. Lola. Sierra Buttes to the Northwest

• • •