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The Branding Iron
J. GOODMAN

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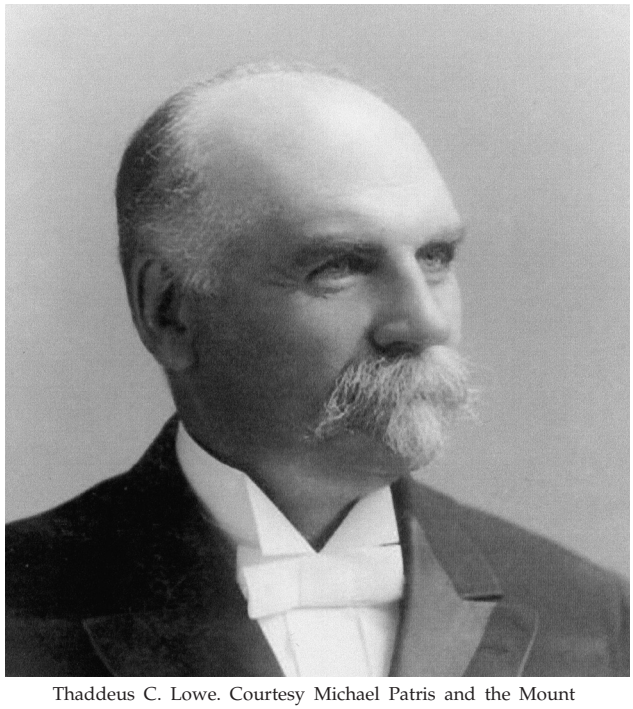

Thaddeus C. Lowe. Courtesy Michael Patris and the Mount Lowe Preservation Society.

Conquering The San Gabriels

by Andrew R. Woolsey
2001 Student Essay Winner

The earliest significant southern California land boom occurred between 1868 and 1876. After years of drought, which eliminated much of the livestock in the region, many ranchers found it necessary to sell their land. Word of inexpensive, affordable land soon spread east, and wealthy business entrepreneurs quickly ignited a land boom which aided in developing southern California.

To encourage passengers to travel to southern California, Southern Pacific Railroad, which owned vast acreage it wished

(Continued on page 3)

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THE MONTHLY ROUNDUP

SEPTEMBER 2001

Dennis McDougal, author and former journalist, gave the Corral glimpses into the history of the *Los Angeles Times*. Mr. McDougal worked as a staff writer for the *Riverside Press Enterprise*, *Long Beach Press Telegraph*, and the *Los Angeles Times* until 1993 when he decided to dedicate his full time to writing books. He has authored seven books; his latest is *Privileged Son: Otis Chandler and the Rise and Fall of the* Los Angeles Times *Dynasty.*

Photograph by Froy Tiscareño.

September Meeting Speaker Dennis McDougal

Stressing the importance of newspapers, McDougal pointed out by 3 p.m. September 11, 2001, there was not a copy of a paper in Los Angeles unsold. Even with continuous television coverage, people turned to newspapers.

Continued on page 17

to sell, added a number of well known writers to its publicity bureau and published the popular *Sunset* magazine, which focused on western travel and living.

The Santa Fe Railroad, competing with the Southern Pacific, began a rate war. So fierce was the competition that for a time a ticket from Kansas City to Los Angeles was one dollar. These rate wars, along with the Southern Pacific's magazine publications and advertising, launched southern California as a major tourist attraction and contributed to the real estate boom that reached a climax in 1888.

Los Angeles quickly became one of the most rapid growing cities in the nation. Though it had only about 6,000 people, it was the largest town in southern California and already had rail connections with the coast at San Pedro and Santa Monica. By 1887, the small towns and communities of Culver City, Glendale, Long Beach, Monrovia, Pasadena, Pomona, and Whittier had developed into cities, contributing to the growth of suburban Los Angeles.

The area of Pasadena near the San Gabriel Mountains flourished. Artists, poets, authors, orators, and travelers of all kinds admired the beauty and charm of its location. Travelers to Pasadena could expect favorable climatic conditions. A rich harvest of blossoming flowers, citrus groves, and other varieties of fruit trees protected by the majestic Sierra Madre mountain range offered a modern day Garden of Eden to travelers. Early pioneers such as John Muir captured the essence of Pasadena as the crown jewel of the valley:

> *In the mountains of San Gabriel, overlooking the lowland vines and fruit groves, Mother nature is most ruggedly, thorny savage....The slopes are exceptionally steep and insecure to the foot of the explorer, however great his strength or skill may be, but thorny chaparral constitutes their chief defense. It swoops into every hollow and swells every ridge, gracefully complying with the varied topography, in shaggy, ungovernable exuberance, fairly dwarfing the utmost efforts of human culture out of sight and out of mind. But in the very heart of this thorny wilderness, you may find gardens filled with the fairest flowers, that any child would love....*

Indeed, the rise of suburban Los Angeles and developing areas close to Pasadena distinguished southern California as one of the fastest growing tourist vacation spots in the world. The ideal year round weather attracted a variety of travelers ranging from those seeking warm sunshine or white capped mountains of snow. H. E. Brooks wrote in his book, *Land of Sunshine*:

> *The San Gabriel Valley is the beauty spot of Southern California. Many experienced travelers have declared it to be the most charming valley in the world. He who sees the nestle in the dark glossy foliage of the leaves, and a genial sun draws out the perfume of a myriad of flowers, while the dark, snow-capped mountains form a background to the picture, will admit that the praise is not overdrawn.*

The growth of Pasadena and other nearby communities lured many Easterners seeking a comfortable and attractive place in which to find refuge from the rapid paced big city lifestyle. Along with the flourishing development of the citrus and agricultural industries, a phenomenon known as the "health rush" grabbed the attention of many. Many Americans wanted a simpler form of natural living which was found in the quiet picturesque setting of southern California. The alleged health-giving properties of California's climate gave many Americans the promise of a fountain of youth. Southern California was often described as a place where the climate was helpful in curing many ailments such as tuberculosis. It was here that professor Thaddeus Sobieski Constantine Lowe decided to migrate west.

An inventor and business entrepreneur, Professor Lowe enjoyed fame and economic success through his post-Civil War inventions. At the age of fifty-five Lowe's inventions already included an ice-making machine, a refrigerator ship, an incandescent

gas light, and his widely publicized Civil War balloon exploits. As interesting as these inventions were, it was his gas-from-water process that produced a small fortune for Lowe and enabled him to consider early retirement out West.

In 1888 Thaddeus Lowe came to southern California to retire. Even though his intentions were to rest, retirement was impossible for a man with such strong stamina and spirit for life's many challenges. Grasping the possibility of business opportunities in suburban Los Angeles, Lowe put his limitless energy to work. Lowe's early success spanned different areas of economic venture. Among them were his founding of gas works, an ice-making company, and helping to organize two banks. Lowe became a resident of Pasadena after buying the Pasadena Gas company. While these business enterprises required significant attention, Lowe still had time on his hands.

In his spare time, Lowe admired the grand view of the towering Sierra Madre from the terrace of his lavish home. The famous mountain range quite often reminded him of the White Mountains in his native state of New Hampshire. After Lowe met David Macpherson, the impressive Sierra Madres began to lure him on foot and horseback up numerous bridle paths. Eventually, Lowe became so familiar with every secret corner and path that he even surpassed the old mountaineers.

As time passed, the more he visited the mountains the more they surprised and charmed him. Lowe's first impression was of barren and rugged slopes, but as he researched further he found himself utterly mistaken. Lowe began daily overnight retreats. Hiking in the moonlight, he discovered places he had never seen before during the daylight hours. Many days were spent finding new retreats so that others might experience what Lowe valued as a natural gift.

Lowe persuaded his friends to accompany him, and they discovered the secrets of the Sierra Madres. Among their discoveries were timid deer, the San Gabriel River, trout fishing, fields of natural barley, gray squirrels, wild pigeons, quail, and doves. Thus, as he experienced anew the joy of "holding converse with nature's charms, and viewing her stores unrolled," he asked why should not others be delighted. His vision was that Nature-lovers who came to southern California would experience the opportunities and treasures the glorious mountains held. Lowe's admiration and passion for the Sierra Madres and natural wilderness inspired in him a desire to find a way to build a railway which could bring tourists up the mountain range to enjoy its breathtaking beauty and charm.

The reality of Lowe's vision to build his railway to the skies was a difficult task. Surveying the Sierra Madre mountains was necessary to find a peak which could be reached by railroad and a grade which could enable the railroad system to work. Lowe finally opted for the oldest trail and greatest peak in the Sierra Madre range, Wilson's Peak. Wilson had improved an old trail specifically for purposes of finding timber to be used for various operations in his orchards and winery.

The popularity of the trail captured the spirit of the early hiking age. Residents who attempted the difficult ascent established a communication system with friends by building a bonfire once the peak was reached to let them know they had arrived safely. Tourists quickly found riding horses, burros, and mules to the peak a rugged recreational delight. After these early hikers reached the summit, their tiresome journey was rewarded with an extensive view of the San Gabriel Valley and Pacific Ocean. George Wharton James, a publicist and avid hiker, stated:

> *Those who performed the journey, though experiencing great fatigue and difficulty, were so enthusiastic over the rich panorama viewed from the lofty elevation, that a trip to Wilson's Peak became a much boasted of performance, and, consequently, a constant subject of conversation.*

As the popularity of the peak soared by

the mid 1880's, the trail quickly became inadequate in accommodating the 4,000 people hiking to the summit every year. Many regular travelers felt that the Wilson trail was too steep and too long. The six mile route from the middle of Pasadena to the base of the mountain proved impractical to hikers and the idea of an early wagon road or rail line proposal was introduced by H. H. Markham in 1883. Markham, a Pasadena merchant and civil engineer, proposed a line of levels up Millard Canyon ending up across the ridges to the mountain-top.

Hikers interested in a railroad to the mountains voiced their impatient concerns in the construction of the line. Shortly after the route was introduced by Markham, competing engineering businesses raced to be the first to build a railway line to the summit of Wilson's Peak. By late 1887, there were four separate groups seriously interested in mountain railroad projects. One of the most flourishing groups came from the proposal of Colonel J. E. Place. Place proposed the first cog-wheel line from the mouth of Eaton Canyon to the top with a maximum grade of 25 percent. However, the cost to build the line was unfeasible and construction came to a halt.

Although Colonel Place's proposal offered the most plausible plan, another active Pasadena resident, David Joseph Macpherson, had long been searching for another route to Wilson's Peak. The young native Canadian settled in Pasadena after receiving a degree in engineering from Cornell University. An intelligent scientist, his shy and humble presence often downplayed his true talent. Once civil engineer for the Santa Fe Railway, Macpherson had experienced great success. Shortly after his arrival in Pasadena, Macpherson spent a majority of his time within the rugged canyons of the Sierra Madre conducting surveys, deciding that whatever plans he conceived would be kept to himself.

Once Macpherson heard of Colonel Place's attempts to build a cog railroad from the Sierra Madre to Mount Wilson, he quickly acted to survey a rail route up the mountain. Macpherson was uneasy with the idea of a line starting from Sierra Madre rather than the center of Pasadena. After a ten day retreat into the mountains, Macpherson found a practical electric rail route to the summit of Wilson's Peak. His proposal offered no insurmountable difficulties in constructing a railroad. But how could Macpherson fund such a tremendous project? On March 6, Macpherson had his first meeting with a group of potential investors. This is what he was able to tell them:

> *A perfectly practical route was found for a narrow-gauge road from the Terminal Road on Lake Avenue, to the observatory on the summit of the mountain, and the building of such a road is feasible. I am not prepared at present to give any estimates of cost, but will reach that point later on. The road can be built between the points named on a uniform grade of 7.5 percent. The distance from the Terminal to the summit is 11.7 miles.*
>
> *The survey proceeded northward up Lake Avenue to the mouth of Rubio Canyon, which it entered, continuing up the canyon a short distance it crossed and continued along the west side of Eaton Canyon, reaching an altitude of 1,000 feet above the entrance, thence, its route is up the west side of the canyon to its head, and the observatory is reached by swinging again to the east.*
>
> *No tunneling was found necessary, and the bridging will be light. Of course, it isn't designed to run a train of cars over the road....but to provide for a powerful dummy engine and one car. I will investigate the matter of building such an engine and in a short time hope to be ready to report on this and other details. The general result of the reconnaissance is of a very hopeful character.*

Although Macpherson's idea ensured success and economic gain, not one of the investors came forward to offer any financial assistance. The following months proved tiresome for Macpherson. By this time the Southern Pacific became interested in the project. Rumors of Judge Benjamin S. Eaton's

David Joseph Macpherson. Courtesy Michael Patris and the Mount Lowe Preservation Society.

support of surveys and plans for construction of a mountain railway from San Gabriel through Pasadena and Altadena to Eaton Canyon almost ruined Machperson's railroad plans.

Unknown to Macpherson, Professor Lowe shared the same enthusiasm and vision. As historian John W. Robinson states, "Both men were visionary, yet grounded in knowledge of science and engineering." In 1890, Lowe was reasonably new to the area and had developed a reputation for following through on his many investments. Macpherson had read of Lowe's success and became interested in Lowe as a possible financier. P. M. Green, a banker and close friend to both Lowe and Macpherson, introduced the two.

The two idealists both found their answers in a day horseback trip to the summit of Mount Wilson. Captivated by the breath-taking view, Lowe immediately agreed to fund Macpherson's proposal. As Robinson explains, "Enraptured by the spectacular panorama, he reportedly vowed then and there to build the mountain railway, even if he had to finance it himself. All at once the Professor's life had purpose again."

By the late 1880's Lowe placed a team of surveyors and engineers in the San Gabriels to find other possible sites. This corps of engineers were instructed to examine all desirable peaks, one of which was Observatory Peak near Mt. Wilson. If Observatory Peak could be reached, the addition to the current railway system would offer unusual scenic enjoyment. Even with this extensive research, Lowe remained unsatisfied. Undeterred, he pressed on, discovering numerous points for the purpose and pleasure of the hikers whom he felt, hoped and longed to see the whole region. As James

described Lowe's intentions:

> *So with a persistency, which to the skilled engineers seemed nothing less than stubborn obstinacy, Professor Lowe kept them engaged, month after month, urging them to exercise their utmost endeavors to devise a method of scaling the—to them—unscalable mountain, whilst he himself bent his own trained energies and powers of observation to work.*

After four months, Macpherson and Lowe developed a practical plan for an electric railway to the summit of Mount Wilson through Eaton Canyon. On June 2, 1891 articles of incorporation were filed and the Pasadena & Mount Wilson Railway Company began. Among the selected officials to oversee the project were T.S.C Lowe, president and general manager; P.M. Green, vice president; Edward Groenendyke, secretary; T.W. Brotherton, treasurer; and D.J. Macpherson, chief engineer and construction supervisor. The Professor invested almost his entire fortune, expressing full confidence in the project. With persuasive business selling techniques, Lowe received pledges from Pasadena residents. Soon after the corporate advisors were appointed, Lowe inspected other such railroad projects to better understand how they worked. After his study Lowe concluded that electricity could power the Mount Wilson railroad.

Though the company's plans led onward, a business obstacle quickly delayed further progress of the construction. The Mount Wilson landowners, Peter Steil and A.G. Strain, were currently operating a toll road to the summit where camping grounds offered rugged overnight lodging. Historian Charles Seims stated "there had been feuding for years over the disputed boundaries at the summit. At one point, Strain had even gone so far as to place a gate across the toll trail and threatened to evict the Harvard Observatory from what he claimed was his land." Lowe's patience ran short with the competing enterprise. When his business requests were rejected, he asked Macpherson if there was another summit route for his railroad.

Macpherson's experience in the mountain area combined with his engineering genius provided a solution which had long before been pronounced impossible. Macpherson suggested Echo Mountain, a point between Las Flores and Rubio Canyons, halfway up the southern slope of the Sierra Madre. Macpherson decided that a series of direct cable inclines with a turnout at the center would allow the cars to pass, as opposed to the original plan of a circular railway upward towards the summit. Though Macpherson's idea was possible, tremendous engineering difficulties needed to be overcome. The first would be difficult, the finding a right-of-way for four rails, which required massive techniques to widen the walls from 20 to 25 feet in high places.

Inspired by the formidable task, Lowe worked with Macpherson's idea. As Robinson reflects, "The challenge appealed to Lowe—an incline railway powered by electricity—something never before attempted on any mountain in the world." After contemplating the situation, Lowe sketched a plan using one common inside rail for the incline cars. The significant change offered a narrower right-of-way ultimately cutting down the width of the cable incline.

Lowe and Macpherson's brilliant plan to conquer the impossible was an ingenious solution. Oak Mountain with its qualities of beauty, charm, splendor, and elegance was thought by many to be beyond reach. Immediate approval of the highest authorities was quickly obtained once they saw that Macpherson's idea of a cable incline up Echo Mountain was feasible. As James reflected,

> *The new survey was undertaken and pushed to its completion with almost incredible speed, and, to the astonishment of all concerned, it not only was found that the ascent to Mt. Lowe could be made with ease, but that—with the exception of the one steep climb which the Echo Mountain Cable overcomes in six minutes—in no place would the grade exceed the slight percentage of seven and a half.*

Not only did this new route reflect a technological breakthrough, it also theoretically proved to be a profitable investment. The economic possibilities allowed the company to establish a series of hotels at different altitudes. The development of these early resorts would offer new forms of recreation in a diverse wilderness setting. On the inauguration day in December 1891, the company renamed its enterprise, The Pasadena & Mt. Lowe Railway Company. The first spike driven by Lowe at Mountain Junction, initiated the first phase of construction up Lake Avenue towards the mountains. The Pasadena & Mt. Lowe Railway Company would introduce the first electric trolley and cable railroad connecting the cities of Pasadena and Los Angeles with the summit of the Sierra Madre Mountains.

The first phase of construction began from Mountain Junction, also known as the Los Angeles Terminal Railway, at Altadena. This single rail line branched into double track at Lake Avenue. Though a crossover was available, the architects of the line had no intentions of the steam engines running forward on the down hill. As a result, the engines ran backwards on downhill runs. On Lake Avenue a powerhouse provided the lines' electricity and a depot stop served passengers.

Once the line hit Rubio Canyon at 3,800 feet, construction difficulties emerged. Rock formations found within the canyon wall were removed by massive explosions. Often residents of the valley were amazed by the sound of explosions through solid rock. Powder charges were placed within the walls by men lowered down the side of the deadly canyon cliffs. James wrote, "Over thirty thousand feet of lumber were carried on the shoulders of the workmen to build these walks, etc., for, prior to their erection, this canyon was absolutely inaccessible to the ordinary traveler."

By late September 1892, tracklaying reached the final mile. The mouth of the canyon continued a series of gaps that could only be crossed by the construction of eleven bridges. The laying of timber to build these bridges only required a crew of four men and a few days. After placing each trestle as the foundation, large planks offered safe passage for a team of horses moving towards the next crossing site. The most difficult and expensive of all bridges was the first, Las Flores Bridge. A rare and expensive material known as trestle timber was used to provide a strong base for the bridge crossing the deep ravine. Professor Lowe's careful attention to detail in the construction of the railroad offered little room for carelessness. As James expressed in his tour guide:

> *And now we are fairly within Rubio canyon. At its mouth it is broad, and though rugged, its slopes are neither imposing nor precipitous; but after crossing the first bridge, the scenery begins rapidly to change. This bridge is built in a substantial manner, of the same sized timbers as those used in the bridges of the Santa Fe system, so that we journey along without the slightest sense of insecurity or danger.*

Lowe publicized his project by horseback tours up bridle roads towards the summit. The parties included leading Pasadena citizens who challenged the difficult ascent of 5,593 foot Oak Mountain. James remembers his, "first ride on the bridle roads that radiate in almost every direction from Echo Mountain was in company with Professor Lowe, Father Throop, of Pasadena, the founder of the Throop University and Polytechnic School, and Professor Keyes, the President of the Throop Institution." With growing support from residents, motions to rename Oak Mountain to Mt. Lowe surfaced. *The Pasadena Star* of Thursday, December 29, 1892, a day after the honorary ceremony, stated:

> *While in the enjoyment of the beauties and grandeur on this magnificent elevation, more than 6000 feet above the sea, one of the party inquired the name of this grand and lofty mountain top, and then it was discovered that until this time, this giant peak the monarch of the Sierra Madres, was unnamed. One of the party suggested, that whereas Prof.*

T.S.C. Lowe, the great scientist, had first ridden to the top, had made the first trail to its lofty summit, was the first man to have planted the stars and stripes on its highest point and was the first man to conceive the project of reaching its dizzy height with a railroad, and with courage and means to put such a project into execution, as was now being done, no more fit and appropriate name could be given this mountain than the name of 'Mount Lowe.' The motion to so name it was put and carried without a dissenting vote, and so there, above the clouds it was named and will continue to be named when every one of the party, present at the christening, shall have been laid away in mother earth, and generations yet unborn will trace its rugged outlines on their physical geographies and call it Mt. Lowe.

With the completion of the first section, a traveler would travel by an electric trolley to its destination point of Rubio amphitheater. From Pasadena, 834 feet above sea level, the line ran from Mountain Junction three and a half miles towards the foothills into Rubio Canyon to an elevation of 2,000 feet. While passing the solid granite mountain side through carefully constructed bridges, beautiful views of the valley illustrated the importance and significance of Lowe's railway vision. Rubio amphitheater offered a large pavilion and held many attractions which proved to be a popular resort to those seeking rest and relaxation from a hard day's work. James describes the illustrious hotel:

As we enter the commodious concert and entertainment pavilion we recognize, at once, that we are in a veritable temple of healthful pleasure. Rich music, both classic and popular, played by an orchestra of first class artists, sweetly floats upon the listening air. Concerts—sacred and secular, vocal and instrumental—are given, and entertainments of higher order, with finely illustrated lectures, add considerably to the attractions.

The elegant Rubio Pavilion was the first of four mountain resorts which sparked a lodging movement in the foothills. Deep within the forest filled with giant sycamore and live oak trees was a single level pavilion overlooking a narrow gorge just above a waterfall which flowed directly into the stream bed below. Later bottom rooms were added. The location's charm continued into the evenings with moonlit ball parties which were held by numerous social elite from cities all over the world. As James described, "Hotel Rubio is a most unique structure. It is built in the heart of Rubio Canyon, and above it is the immense platform bridging the canyon on which stands the Music Hall, pronounced by the Chevalier de Konski, pianist to the Emperor of Germany, 'the most perfect building to play in possible to be conceived.'"

Quiet evening strolls were taken to hidden settings filled with ferns, wildflowers, and miniature waterfalls. On special occasions, visitors viewed fireworks displays erupting from Mt. Vesuvius offering a colorful light show. Illuminated electric cars ascending and descending the steep grade could be seen traveling up and down the mountain with confident and delighted passengers. As James described:

Standing on Rubio Platform, the visitor gets his first full view of the Great Cable Incline. From the valley—even from cities as far away as Los Angeles—he may have seen the electric lights, which at night illuminate this mountain railway and show its steep grade, but now he stands before it and takes in its marvelous features in one view. At least he imagines he does. But his view is by no means complete.

The second phase of construction focused from the Echo Mountain House across Las Flores Canyon along the winding ridge of higher mountain valleys to the summit of Mount Lowe reaching 6,000 feet. This summit is the highest peak visible from Pasadena. Traveling by railway proved a daunting task. Lowe and Macpherson's Great Cable Incline offered a direct rail line from Rubio Pavilion at 2,200 feet to Echo Mountain at 3,500 feet. This breakthrough in

engineering science was modeled after San Francisco's Clay Street Hill Railroad built a decade before, by another engineer Andrew S. Hallidie.

By April 12, 1892, Macpherson directed all his personal attention to the cable incline. The grade began at 60 percent increasing to 62 percent and eventually leveling out at 48 percent near the top. This vertical jump of 1,300 feet along 3,000 feet of roadway made traveling extremely difficult and tiresome. As Robinson explains, "The rise was so precipitous that construction materials and supplies had to be brought up by burro, then carried by men across rough, unstable slopes the animals could not negotiate." Eight months of tiresome work carved a grade through a ridge known as Granite Gorge. During this period every able worker was used to carry disposed rubble upward 50 yards where it was dumped down the side of the canyon. The rubble was carried uphill for the purpose of avoiding any disposal downhill which would fill the canyon and destroy the site where the loading platform would be.

Once temporary rollers evened the surface of the roadbed, a large manila rope was carried to the top of the mountain by mule-back. Attached to a large winch, the rope was drawn down the incline where it was connected to a wire construction cable weighing 3,000 pounds. With a team of four horses on the top of Echo Mountain, the construction cable was carefully pulled up the incline. Shortly after, the Echo Mountain power house was built in a similar fashion carrying heavy machinery parts up the incline with the assistance of a four-horse winch.

One of the major difficulties in the construction came a third of the way up the incline in crossing a 40-foot deep canyon. The challenging task was overcome with a bridge 200 feet long on a 62 percent grade. The foundation of the bridge was laid with cement brought up the grade on the backs of workmen after stubborn mules resisted the challenge. Named Macpherson's Trestle, Lowe honored D.J. Macpherson for his engineering genius. As Charles Seims added, "It was one of the few instances where the Professor gave credit to anyone other than himself."

In January 1893, at the completion of the trestle, crews began laying three rails from top to bottom. Electric power to operate the incline cable was generated in two ways. The first was hydro-electric power from water piped from Sycamore Springs in upper Rubio Canyon to a reservoir on Echo Mountain down to Rubio Pavilion. Water wheels and an electrical generator located at Hotel Rubio charged a bank of 300 storage batteries which produced a sufficient supply of power throughout the line. The second source of power was provided by gas engines, located at Mountain Junction and Echo Mountain, to complement the water power during dry seasons. Large copper conductors provided energy to the power-house turning the incline cable. James described this electric power phenomenon:

> *In either case the electric power is transmitted by large copper conductors to the Echo Mountain power house, supplying current to the 100 horse power electric motor, which makes 800 revolutions per minute. Then by a series of gears the revolutions are reduced from 800 to 17 per minute, which is the speed at which the massive grip-sheave turns. The grip sheave consists of tremendously heavy wheel on which about 70 automatic steel jaws are affixed. As the wheel revolves, these jaws close and grip the endless cable, to which the cars are permanently attached, and thus are they raised or lowered as occasion requires.*

Traveling the incline were two specially constructed cars connected to each end of the cable. The carefully balanced cars passed each other midway through the incline. Since each car was attached to the endless cable, one car was always ascending while the other was descending. More significant was the recycling of power induced by this system. A.W. Decker, Lowe's electrical engineer, calculated the number of horsepower it would require to raise and lower each car

Thaddeus S.C. and Mrs. Lowe in front of an incline car, opening day, July 4, 1893.
Courtesy Michael Patris and the Mount Lowe Preservation Society.

based on the number of passengers. He predicted that 15 horsepower would raise a empty incline car and 45 would be needed to raise a car of 24 passengers. On return, if the descending car was full and the ascending car empty, 15 horsepower would be regenerated into the powerhouse batteries. As Seims explains, "Decker predicted that over the entire line 40 percent of the total power consumption would be regenerated on the downward trip."

Though the idea seemed flawless, Lowe's engineers again ran into pressure from neighborhood influences to legal technicalities concerning mountain water. Owners of the Rubio Canyon Land & Water Association held rights to the water in the canyon. Since this water was heavily used by residential customers in Altadena, Lowe's railway was prohibited from storing a significant amount of water in the reservoir. As a result, Lowe was never certain that the batteries could be recharged and adopted a new idea of an overhead trolley system which used water power whenever necessary. As Seims describes:

> *The idea of getting something for nothing by using otherwise wasted water power captivated Lowe, and he was not about to abandon it. A 100 horsepower Pelton water wheel and two smaller wheels of 25 horsepower each were installed under the floor of the Incline platform. When sufficient water pressure was available they operated the electric plant for the hotels and as an*

auxiliary power source for the Incline.

The new idea of a trolley system was operated at Mountain Junction by 600 volts of power from a 60 kilowatt Edison generator connected to electric feeder lines over the trolley railway. In addition, two Otto gas engines produced 50 horsepower each, both attached by leather belts to the counter shaft of the generator. On June 21, 1893, weary workers looked on with relief as the great incline cable was successfully moved. The uncovered cars, painted white and formally known as the "White Chariots," offered a panoramic view of the valley and surrounding mountains. As James observed:

> *As visitors ride up this Great Incline, how few of them dream of the arduous labor it represents. Not only were the ordinary difficulties of railroad building to overcome, but the grade was such, that burros had to carry cement and water for building the walls and buttresses, which, in places, where not even burros could climb in safety, men carried the required materials on their shoulders. It will be apparent, therefore, to the least initiated, how much labor and cost were expended in its construction, and yet, up to the time of laying the last rail it was the money, energy and engineering skill of one man who accomplished it, when the great majority, with less foresight and courage, regarded the undertaking as well nigh impossible.*

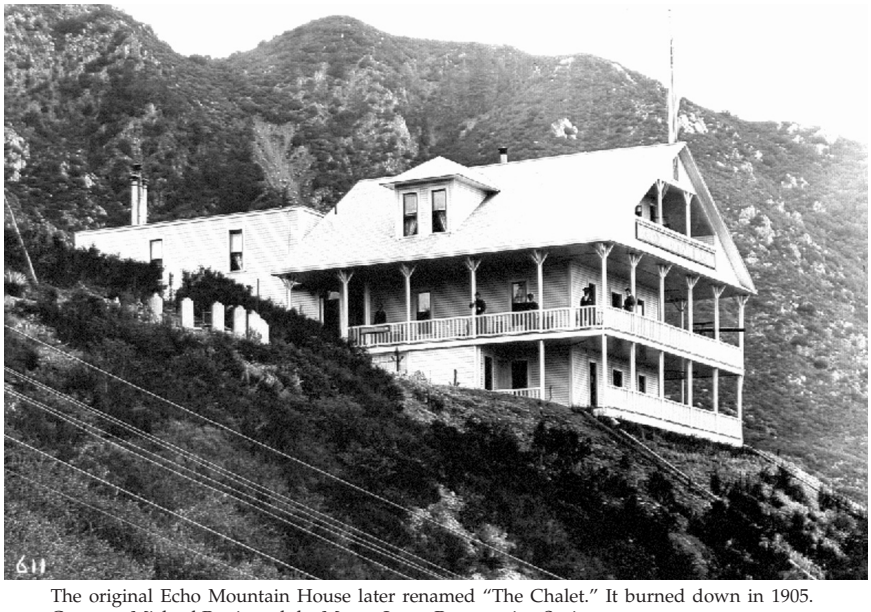
Soon after the incline was complete, a small hotel was built at the at the top. Lowe's second lodging was a success with an illustrious dining room overlooking the valley. On July 4, 1893, the grand opening of the Echo Mountain House was visited by over 400 passengers by way of the Great Cable Incline. The famous and highly publicized Echo Mountain House was visited by many of the business and social elite of the Southland. With the sounds of a small orchestra playing "Nearer My God To Thee," the starting point of the incline at the Rubio Pavilion platform was filled with crowds awaiting the chance to ride the White Chariots.

Later Echo Mountain House was replaced by a large, white, three story grand hotel which offered a panorama of the mountain and valley. The smaller hotel on Echo Mountain was renamed "The Chalet."

Additional features added near the hotel were a dormitory, machine shop, museum, and small zoo. These additions along with the hotel became known as the "White City" or "City on The Mount." Due to the growing public response and national publicity, Lowe's enterprise ushered in an era of great hiking and lodging in Southern California. Lowe's additional bridle paths and hiking trails offered over 30 miles of rugged enjoyment. Hiking, as a tourist attraction in the Southland, quickly reached enormous success with the development of these trails and roads. Roaming freely among the surrounding mountain scenery, hikers from all over embraced the joyous vacation spot. Mount Lowe Eight, which formed a figure 8, was the favored trail. A large corral holding horses, mules, and burros as available for all travelers. The rapid response to Lowe's electric railway offered a new vacation spot which continued to grow.

The climate of Echo Mountain offered a variety of seasonal changes which provided unique recreational opportunity throughout the year. On Echo Mountain travelers could expect warmer air in the winter and cooler air in the summer than was common in the valley below. From orange groves to snow, visitors could experience two different geographical settings in the same day. A day ranged from humming-birds and endless variety of blooming flowers in Pasadena to the natural toboggan slide and winter sports of the mountains. Mount Lowe was admired by all. Even the occasional fog and cloud cover provided a unique change. James wrote, "One of the most beautiful sights from Echo Mountain House is to see the fog or cloud, like a white sea, hiding all but a few pinnacles and islands of the valley beneath."

In addition to the "White City," Lowe purchased the world's largest searchlight, which was said to have been seen as far



The original Echo Mountain House later renamed "The Chalet." It burned down in 1905. Courtesy Michael Patris and the Mount Lowe Preservation Society.

away as Catalina Island. Built by General Electric, the eleven-foot high, 6,000 pound searchlight arrived in Pasadena on August 6, 1894, and had been featured at the World Colombian Exposition the previous year. The three million candlepower phenomenon was installed near the top of the incline at 6,000 feet achieving world wide fame as the highest light of its size in the world. Powered by a 50 horsepower engine and an electric water wheel, the great searchlight was tried for the first time on September 10, 1894. So powerful was the searchlight that it spotted ships at sea and illuminated the towns and city houses of the valley. As Robinson explains, any Pasadenan wanting his house illuminated could arrange this by building a bonfire in his backyard. In short order the blinding light would turn night into day around the home.

Along with the magnificent searchlight, Lowe's interest in astronomy propelled him to build an observatory on the slope behind Echo Mountain. The Lowe Observatory under the direction of astronomer Dr. Lewis Swift became a popular attraction for many mountain visitors. With a small 16-inch refractor telescope, Swift began operations and recordings of the stars in 1894.

As the White City and electric railway made headlines throughout the United States, due to the efforts of George Wharton James, a publicist employed by Lowe, people came from all over. Referring to the San Gabriel Mountains as as "The Alps of America," James sparked interest in imaginative readers. As John Robinson describes, James produced an endless flood of pamphlets and news releases, shouting the glories of the incline and comparing Echo Mountain with just about every famous peak in the world and finding it much superior. From Pasadena to to the entire country, word of the Mount Lowe Railway line spread. Still Lowe's ambition drove him onward to expand his dream with an electric trolley line ascending four miles to Crystal Springs.

Digging and blasting began in early 1894 for this anxiously awaited final stage. The line's 127 curves were carved out of the granite mountainside with the longest stretch of straight track 225 feet. The Grand Circular Bridge, 95 feet in radius, was one of the spectacular railroad advancements along the line. The rails crossed over a gully and rounded downward forming a complete circle. Many look out points were later named Cape of Good Hope, Horseshoe Curve,

Car navigating Circular Bridge with Echo Mountain in the back-ground.Courtesy Michael Patris and the Mount Lowe Preservation Society.

Sunset Point, and Granite Gate. From Echo Mountain to Crystal Springs, the line produced a joyous ride.

At Crystal Springs, Lowe constructed Ye Alpine Tavern, a stonewalled hotel hidden within pines, spruces, and oak trees. Lowe's desire to keep a natural setting demanded minimal removal of trees. The building, capable of housing over 200 people, offered bedrooms, a main dining room, and a lobby for all guests. Additional cabins were added to accommodate extra overnight guests. Like the White City, Ye Alpine Tavern offered a series of trails and bridle paths. From the Tavern, two different trails could be traveled to the summit of Mount Lowe. The first offered hiking, and the second a pony train which left from the Tavern twice daily.

Once Ye Alpine Tavern was completed the railway system offered four different hotels along the tri-crested summit of Mount Lowe. The first, Hotel Rubio at 2200 feet elevation, then Echo Mountain House at 3500 feet, "The Chalet" just a few feet away at 5,000 feet, and Ye Alpine Tavern.

On a financial level, Lowe's investment in the railroad had promised success and future growth. By 1892, several thousand fares were taken in on the railroad line. These estimated fares did not include other areas of revenue owned by the railroad company including the receipts from large private parties held for wealthy valley residents. Unfortunately, these estimates fell short of the projected revenue.

Ultimately Professor Lowe's ambitious dreams led to financial hardship as early as 1894. Lowe's financial expectations from his railroad line did not materialize creating more than $500,000 debt. Even though the world famous project sparked much attention, it was unable to meet bond payments, leading to a

two year period of receivership. During this time Lowe struggled to maintain the necessary income, yielding to new ownership under Valentine Peyton. Lowe lost his fortune through the courts which sold the railroad line to Peyton for only $190,000 in 1899.

Sadly, a fire destroyed the Echo Mountain House on February 5, 1900. As a result, Lowe lost all hope of bringing back his railroad. Lowe, having lost his entire fortune, was forced to spend his final years with one of his daughters in Pasadena, dying in 1913 at the age of 81.

In 1902 the company was bought by Henry E. Huntington, owner of the Pacific Electric Railway Company, who made improvements to the system until 1937. Pacific Electric Railway eventually filed a petition with the State Railroad Commission to abandon the entire railway line due to a series of natural disasters, all of which created financial strain on the Pacific Electric. The first occurred in 1905, when a fire and windstorm surrounded Echo Mountain destroying every building of the White City. The cable on the incline broke loose, sliding 3,000 feet to the Rubio Pavilion platform.

Just four years later the mountain railroad suffered from a giant thunderstorm which sent a series of boulders down the walls of Rubio Canyon destroying the Rubio Pavilion. The lodge was never rebuilt and remained only a traffic stop for passengers. In 1928, another windstorm destroyed the dome of Lowe Observatory, nearly leveling the telescope. Matters took a turn for the worse when fire broke out on the Macpherson Trestle in 1935 damaging the great cable incline and costing nearly $20,000 to rebuild. Finally in 1936, Mount Lowe Tavern suffered a tremendous fire causing an estimated $150,000 in damages.

Due to the natural disasters that befell the mountain railway and the nation's economic downfall in the 1930's, the Pacific Electric Railroad was granted permission to abandon the line in November 1939. Soon thereafter in April 1940, the Mount Lowe Railway was dismantled due to a great rainstorm in 1938 which washed away many sections of the track. Vandals further destroyed the remaining abandoned buildings by breaking down every door and piece of glass still in good condition. In 1959 and 1960, the Forest Service finished off the few remains of Mount Lowe Tavern and Echo Mountain Powerhouse with dynamite, signaling the end of one of the most ambitious recreational projects in Southern California.

Today, what was once a brilliant and majestic tourist attraction is now but a memory. Few historical remains are visible and can be seen by hiking the Mount Lowe fire road leading to Echo Mountain. Track ruins and stone foundations remind hikers of Professor Lowe's and Macpherson's tremendous effort in achieving their dream with persistence and determination. In memory of their painstaking efforts to produce one of the grandest railroad lines in the world, a large bullwheel and granite plaque honor the two visionaries for their contribution to the citizens of Pasadena, Los Angeles, southern California, and the world.

During a time of recreational growth and business opportunity, the Mount Lowe Railroad company captured the essence of the time period. The railroad as a successful tourist attraction, fostered the growth of California's land boom in 1886. As a business entrepreneur, Lowe grasped the economic opportunities in suburban Los Angeles, proving southern California to be a worthy economic competitor to the northern and central parts of the state. Along with the transcontinental railroad, Lowe's own railroad provided early transportation within the growing towns and cities of the San Gabriel Valley such as Pasadena, Altadena, Sierra Madre, Glendale, and Monrovia. The technological advancements achieved by Lowe and Macpherson captured the imagination of travelers, who stood in awe of the engineering evolution they had been privileged to witness.

In the end, Lowe's mountain railroad's greatest contribution was its ability to capture the hearts of many Americans looking for a simple way of life. The rise of southern California communities provided a comfortable lifestyle filled with opportunity and

growth. The Mount Lowe railroad helped to promote a love of the outdoors along with the growth of a hiking and lodging movement out west never before seen in any area of the country. Luxurious resorts and rugged trails provided new tourist and recreational opportunities to travelers in southern California, once thought to be a fountain of youth. Towering above the San Gabriel Valley, the majestic Sierra Madre mountain range was, in its heyday, harnessed by Lowe for the enjoyment of many hikers and recreational enthusiasts. Unfortunately, his vision could not overcome the financial pressures which led to the railroad's eventual decline. The tremendous energy given to his creative project and personal love for the Sierra Madres provided, for a time, an idyllic life in Southern California at the turn of the nineteenth century.

> *I lost the road and with it my fortune, because I was ten years ahead of the times of the country, and the time for such a venture was not ripe. Therefore I lost, although I have no regrets, for I realize that many millionaires would sacrifice their fortunes to attain a monument for themselves such as Mount Lowe will be to my name when I have passed away.*
>
> *T.S.C. Lowe*

Suggested Readings

Apostal, Jane. *South Pasadena: A Centennial History, 1888-1988*.

James, George Wharton. *Mount Lowe Railway and Mount Lowe Hotels from Orange Groves and Roses to Snow.*

___. *The Pasadena Mountain Railway*

Pinney, Joyce. *A Pasadena Chronology, 1769-1977.*

Rippens, Paul. *Historical Mount Lowe: A Hikers Guide to the Mount Lowe Railway.*

Robinson, John. "Railway to the Skies" in Los Angeles Corral, *Brand Book 15*.

___. *The San Gabriels II.*

Scheid, Ann. *Pasadena: Crown of the Valley*

Seims, Charles. *Mount Lowe, the Railway to the Clouds.*

(Monthly Roundup Continued from page 2))

McDougal gave a short overview of the *Times'* history from Harrison Gray Otis to the present. Originally, the paper was extremely conservative and important only locally. Otis was one of the leaders of the "open shop" movement in Los Angeles, which many feel led to Los Angeles' day of calamity, October 10, 1910, the day that the Times' Building, the tallest building west of the Mississippi, was blown up. The story of the McNamara Brothers' arrest, trial, and punishment is well known.

In spite of its wealth and power, many considered the *Times* less than second rate. Or as someone said, it was the publisher of pulp non-fiction.

After Otis Chandler took over, things changed. He insisted on good writing, accuracy, and less bias. It changed from a staunch Republican paper to a more moderate one which would even endorse Democratic candidates.

He not only improved the paper, he improved the corporation. The Times-Mirror Corporation expanded into many fields and became a force in the media of the country. Unfortunately, the other members of the family did not want growth and future dividends, but cash now. Chandler stepped down in 1980 and the rush to raise cash was on. They divested many properties until the *Times* itself was sold, thus ending the story of the largest circulation independently owned newspaper in the country.

NOVEMBER 2001

Josef Lesser, native Angelino, long time Corral member, and founder with his wife of J. K. Lesser Productions which produces business and industrial videotapes, presented a new topic to many—the railroad stations of Los Angeles. Joe is also establishing the Los Angeles Museum of Railroading. The initial project of the museum is a series of displays at prominent restaurants. At the present the display is at Philippe's French Dip Restaurant.

Most present Angelinos remember only the Union Station. But before its opening in

Photograph by Frank Q. Newton

November Meeting Speaker Joe Lesser

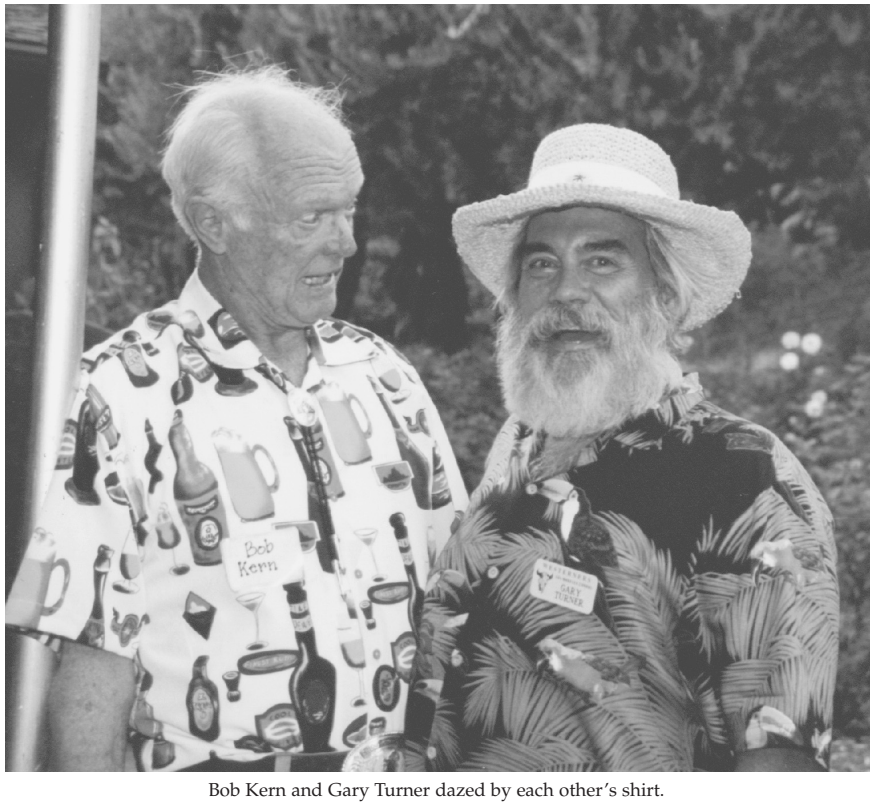
1939, there were a series of stations beginning with the San Pedro-Los Angeles line in 1869. Each railroad as it came into Los Angeles had it own station. These were centered in the industrial corridor along Alameda Street, the Los Angeles River, and Broadway.

Using photos from the California State Archives and the Donald Duke Collection, Joe illustrated all of Los Angeles' early stations in their prime and some in their decline. One photo that evoked fond memories, or at least memories, was the one of a train running down the Alameda Corridor. Another that evoked memories in many was the Henry E. Huntington Building, better known as the Sixth and Main PE Station. At the time it was built, the PE station was the largest building west of the Mississippi.

The talk culminated with the opening of the Union Station in 1939, which gave all railroads entering Los Angeles a common place to arrive or depart. One wonders how many in the audience's first introduction to Los Angeles was the Union Station. The parade that marked the event was ended at 5:00 PM so the trains could begin to run down Alameda again. In spite of its grandeur many elected to detrain at the East LA station or Glendale to avoid the congestion of downtown.

Joe's lecture and Mrs. Lesser's efficient handling of the graphics provided an enter-

taining evening which brought back memories or provided an introduction to things many never knew existed. One valuable addition was a list of all the stations and their locations.



Photograph by Froy Tiscareño.

Bob Kern and Gary Turner dazed by each other's shirt.

Rendezvous 2001

Once again, Marcia and Tom Bent welcomed the Corral to their home for the Annual Rendezvous. As usual the members and guest enjoyed good food, good beverages, good music, and great companionship. A new feature this year was the contest among Bob Kerns, Gary Turner, Gordon Bakken, and Eric Nelson to see who could wear the most unusual (odd, weird, or gaudy) shirt. More in tradition was the successful auction conducted by Hugh Tolford and Loren Wendt ably supported by book wranglers Michael Patris, Paul Spitzzerri, Lynn Hodge, and Bob Schwemmer. The silent auction was handled by Glenn Thornhill and Lori Underwood.

The Corral thanks Gary Turner who took over as Wrangler Boss. Also due our thanks are Paul Showalter for preparing the invitations and Andy Dagosta for the raffle paintings. Elizabeth Nelson and Pat Gallucci greeted the guests. Vickie Turner prepared the place cards and with the aid of Ernie Hovard set up the tables to hold them . The tables also supported the centerpieces made by Christie Bourdet. Gary Turner escaped Wrangler duties by working the bar with Paul Rippens who also aided Ramon Ortega with the audio equipment.

We are also indebted to a group, who will remain nameless, who donated books and other items for the auction. With this group are also the Range Bosses who handled the raffle, financial affairs, and other duties.

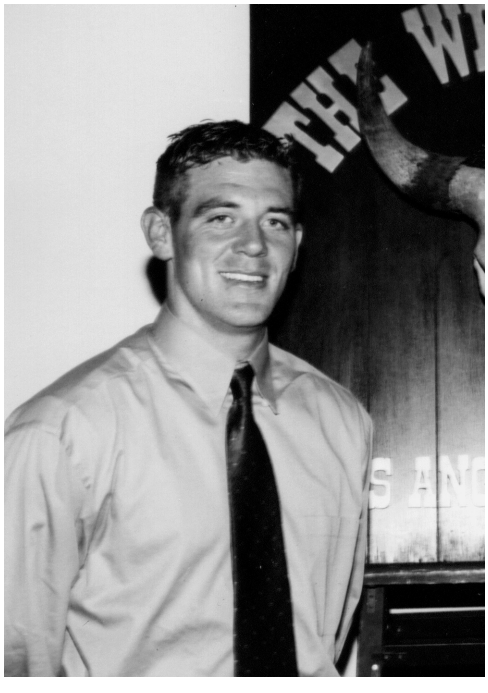
Photograph by Froy Tiscareño.

Sheriff John Robinson introducing honored guest Mike Gallucci.

Photograph by Froy Tiscareño.

Deputy Sheriff Eric Nelson leading the auction with Wranglers Michael Patris and Paul Spitzzeri.

Corral Chips



ANDREW WOOLSEY was the winner of this year's student essay contest. Andrew is a student at University of La Verne. His article on Mount Wilson appears in this issue.

The Historical Society of Southern California honored **Doyce B. Nunis, Jr**. with the Founders Award for his 40 years *pro bono* service as editor of *The Southern California Quarterly*. Nunis changed the publication from a regional publication to a nationally recognized scholarly journal.

CM Daniel Muñoz is the president of the Los Angeles City Historical Society.

Todd Peterson passed away in December.

The San Francisco Corral has announced the publication of its *Brand Book 2, California Vignettes*. It may be purchased for $12 plus $2 for shipping and handling. A few of *Brand Book 1* are available at the same price. Order from Bob Schoeppner, 751 Winchester Drive, Burlingame, CA 94010-2738, 650-342-0291, email: bugmanbob52@ hotmail. com.

Directory Changes

New Members

William E. (Bill) Barr
7350 Da Lee Road
Valley Springs, CA 95252-9144

Bradford Macneil
1341 Sonoma Drive
Altadena, Ca 91001

Mary Lou Pozzo
10966 Hillhaven Avenue
Tujunga, CA 91042

Address Changes

Andrew Woolsey
3020 Winfield Avenue
La Verne, CA 91750

Ronald Geiger
General Delivery
Whitehorn, CA 95589

Jack McCaskill
1929-2001

On October 6th., Jack McCaskill died peacefully in Arcadia.

He joined our corral in mid-1970s and soon became an Associate, attaining Active membership in 1983-4. Along the way he served as Assistant Registar of Marks & Brands (1979, 80, 81) and as Assistant Wrangler Boss (1982, 83).

Jack's profession was plant recording clerk for the Los Angeles County Arboretum in Arcadia, from which he retired after 38 years.

As is well known in botany circles, the Arboretum occupies a significant acreage of what was once part of the Lucky Baldwin holdings. Surrounded by such heritage, it was natural for Jack to develop a burning interest in the Baldwins, some of whom still reside nearby.

Jack's folks and two sisters, were very much attached to the Arboretum in all its activities. Father Vern had a camelia nursery business and developed recognized hybrids. Jack, who lived at home, was much involved in the business. The whole family was very active in all the many societies, events, and shows that took place at the county facility.

Jack's interests spread out from Arcadia to encompass the San Gabriel Valley and, later, the whole of southern California. This led to his ever growing library and the discovery of the myriad of postcards showing towns, their buildings, the railroads, stations, parks, and other places of interest. Over the years he acquired a significant postcard collection of special subjects including Mt. Lowe, Southern California scenes, and albums of views Lake Tahoe where Lucky Baldwin had a hotel complex.

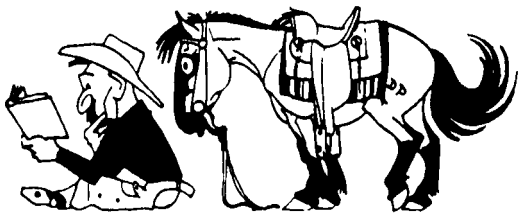
Of the several organizations Jack attended, his favorite was our Westerners. He shared postcard views from his many album collection with several of our members.

In May 2001, his sister June, a well known weed expert based at U.C. Davis, passed away. The passing of June and his folks had a profound effect on Jack who never married.

Jack is survived by his sister Betty "Lefty" who remains in seclusion and under nurses care.

Private interment took place in early October.

–Frank Q. Newton, Jr.



DOWN THE WESTERN BOOK TRAIL . . .

Books are the quietest and most constant of friends: they are the most accessible and wisest of counselors, and the most patient of teachers.

—Henry David Thoreau

GLEN CANYON DAMMED: *Inventing Lake Powell and the Canyon Country*, by Jared Farmer. Tucson: University of Arizona Press, 1999. 270 pp. Maps, Illustrations, Notes, Bibliography, Index. Cloth, $26.95. Order from University of Arizona Press, 1230 N. Park Avenue, Suite 102, Tucson, AZ 85719, (520) 621-1441.

This is a book for those lucky few who visited Glen Canyon before it was flooded by the federal government, for those who wandered through the canyonlands before it suffered Californication, and for those who remember Moab when uranium mines rather than T-shirt shops dominated the landscape. For historians of the Southwest, Jared Farmer offers numerous insights looking backward and witnessing the present West.

The Glen Canyon and Southeastern Utah were places of wonder and desert excitement when hiking and horseback trails facilitated contact with the "wilderness." In the days before four-wheel drive sports utility vehicles, this country had a sense of place based upon exclusivity of the isolation and its scenery. The canyonlands had a history and were not cultural constructs of "wilderness." But that is gone. Jared Farmer provides a very emotional vista of times and places past. Yet he tells of the present. Today the other face of discovery in canyonland is mass tourism, six-pack Joe, and the defiantly ignorant of the X-generation. But mass tourism has another face. The obverse has waited for decades for access to the natural bridges now provided by boat trip. Both these tourists bring money to Lake Powell. Both spend hundreds on gasoline. Some pollute; others leave no mark on the landscape. It is the quandary of the next thousand years: how to give Americans access to nature's wonders and still preserve those views and experiences?

Farmer offers some advice to policy makers. First, we need to enhance public awareness about the ecology of the canyonlands. Second, we need to reevaluate paradise and urge visitors to look beyond the undiscovered, to resist the impulse to privilege the natural over the "unnatural," and to see Glen Canyon as more western and wild than Lake Powell. Finally, what is left of Glen Canyon needs preservation. As a member of a generation that visited the area in 1954, I could not agree more.

Although this is a balanced and thoughtful volume, the author seems unaware of the Metals Reserve Program of World War II that encouraged vanadium mining as a means of procuring uranium. The program resulted in the construction of numerous roads, much drilling, some milling, and high wages for miners. The author should have consulted the definitive work on the subject, a Ph.D. dissertation by Gary L. Shumway at the University of Southern California in addition to his 1983 article on the subject. Farmer's discussion of Hite and White Canyon would have been advanced by reference to the numerous oral history interviews in the California State University, Fullerton Oral History Collection. In particular, the interview with Arthur Chaffin would have substantially elaborated the interpretations presented in the book.

When Glen Canyon filled, the habitat was lost, but the birds did fly to other canyons in the vicinity. Farmer is correct in his interpretation that the flood brought opportunity to more Americans at the cost of habitat, but for those of us who poked around in other parts of canyonland less known, the birds flew regardless of what the

forces of green said at the time.

This is a balanced book well worth reading and distinctly worthy of the classroom.

—Gordon Morris Bakken

CHICANAS/LATINAS IN AMERICAN THEATRE: *A History of Performance*, by Elizabeth C. Ramirez. Bloomington: Indiana University Press, 2000. 189 pp. Illustrations, Notes, Works Cited, Index. Cloth, $42.95; paper, $17.95. Order from Indiana University Press, 601 North Morton Street, Bloomington, IN 47404-3797, (800) 842-6796.

For anyone whose awareness of Chicano/Latino theater is limited to the theatrical production or movie version of *Zoot Suit*, this book will be quite an eye-opener. The author provides both a history and survey of Chicana/Latina efforts as playwrights and actors, but the book also offers more than this topic. Ramirez examines not only Chicana/Latina artists she explores their origins dating to the colonial period in Latin America. For its growth in recent decades, she credits Luis Valdez and his El Teatro Campesino as major influences on Chicana/Latinas.

A word about that name/name. Ramirez's sensitivity to self-referent terms results in an apparently awkward style as shown in sentences such as "For Chicanas/Chicanos/Latinas/Latinos. . . " There seems no other way to get around the need to specify in this manner since the author rejects the term "Hispanic" and focuses on Chicanas (Mexican American women) and Latinas (women from Puerto Rico, Cuba, and elsewhere in Latin America). The specific nomenclature, however, allows Ramirez to make clear whom she is discussing and to avoid generalized comment. Two-thirds of the book deals with Chicana/Latina theatrical works since the 1960s. This large section offers summaries and analysis of the work being done by Chicanas/Latinas, and their success is a measure of the progress they have made in asserting themselves as Chicanas and Latinas, and as performance artists. Names such as Diane Rodriguez, Denise Chavez, and Amparo Garcia may be unfamiliar to non-Latinos, but their plays are being performed in regional theaters. Organizations such as the Los Angeles Theater Center, the Mark Taper Forum, Latino Theater Initiative, and arts centers and theater groups in Texas, California, New Mexico, New York, and other states have provided funding and forums for Chicanas/Latinas whose plays are based on traditional folklore, personal experience, and their heritage. Playgoers interested in hearing the voices of Chicanas/Latinas on stage will find Ramirez's book an excellent guide.

—Abraham Hoffman

TRIBES, TREATIES, AND CONSTITUTIONAL TRIBULATIONS, by Vine Deloria, Jr. and David E. Wilkins. Austin: University of Texas Press, 1999. 209 pp. Notes, References, Index of Cases, Index. Cloth, $30; paper, $14.95. Order from UT Press, P.O. Box 7819, Austin, TX 78713-7819, (512) 471-4032.

The two distinguished authors of this book carefully explore the application of the U.S. Constitution to Indian tribes and individual Indians, concluding that the Constitution does not apply to Indian tribes and only occasionally to individual Indians. What does apply is clearly congressional legislation and treaties. The authors would like Congress to get out of tribal business and return Indian Country to the treaty process. To arrive at this solution to tribal problems and to the law's convoluted and complex nature, these scholars argue an Indian view of the Constitution. Their argument deserves close consideration.

The authors file many complaints against our Constitution and the republican form of government. First, the founding fathers did not leave clear guidance regarding their original intent. Second, the U.S. Supreme Court and our judicial system in general is driven by precedents regarding Indians and Indian tribes that Indians were

unable to challenge at the time of creation. Third, "'Federal Indian Law,' stripped of the hypocritical veneer given to it by law professors, has become a hodgepodge of personal grudges, ad-hoc policies, inconsistent judicial decisions, and a general exercise of ignorance about Indians, framed in statutory language." [33-4] Fourth, an "incisive and tedious review of Supreme Court decisions would show that this tendency to write law without reference to any doctrines or precedents is more the rule than the exception." [55] Fifth, "many tribal justice systems are far more mature than the rigid application of Anglo-Saxon, Old Testament, eye-for-an-eye justice, and many Indians did not want their codes of law and order to be based upon the principle of revenge." [99] Yet the Congress imposed American criminal law upon the reservations. Sixth, the federal government forced Christianity on the Indians in violation of the First Amendment. Seventh, "by manipulating the status of tribal courts to fit its own purposes, the federal government" has created legal uncertainty in Indian Country. [129] Eighth, Congress passes statutes that apply in Indian Country without the consent of the tribes. Ninth, Congress through the Indian Civil Rights Act has imposed some parts of the Constitution and Bill of Rights upon tribes and individual Indians. Confusion and injustice are the result. This is not an exhaustive list, but clearly central to their argument.

The way out is equally clear: a return to treaty making with all tribes circa 1871. There are problems with the argument, but those are best left to a detailed study of the issues. Whether Indians would be citizens of the United States with the right to vote, as the authors acknowledge the Fifteenth Amendment to apply, seems an open question if the Congress repealed each and every law applying to tribes and individuals. Whether tribes and bands without treaties could force the federal bureaucracy to negotiate anything seems problematic, particularly for those tribes and bands without federal recognition. Whether Congress would trust the negotiation process to the executive and the executive to a bureaucracy is a good question for political scientists. Whether tribes could dispose of all tribal land by treaty would be an interesting question. With Congress out of the picture and the Supreme Court adhering to international law precedents on treaties, who would limit the tribe's discretion? Clearly, this question is answered by the authors. That it is tribal business and only tribal business.

It would be this reviewer's wish that the authors would continue this exploration and spend more ink on federalism questions as well as issues of constitutional reach. For example, the application of the Federal Income Tax Code to Indians needs further discussion in light cases like *Oklahoma Tax Commission v. Chickasaw Nation*, 515 U.S. 450 (1995) holding that a state could impose income taxes on wages earned by tribal members who were employed on the reservation but resided outside the reservation. With the miracle of gaming on reservations, this type of federalism issue is well worth exploration.

This is a book worth reading. The authors clearly argue for a very different America with the tribes in a far different legal position than they presently hold.

—Gordon Morris Bakken