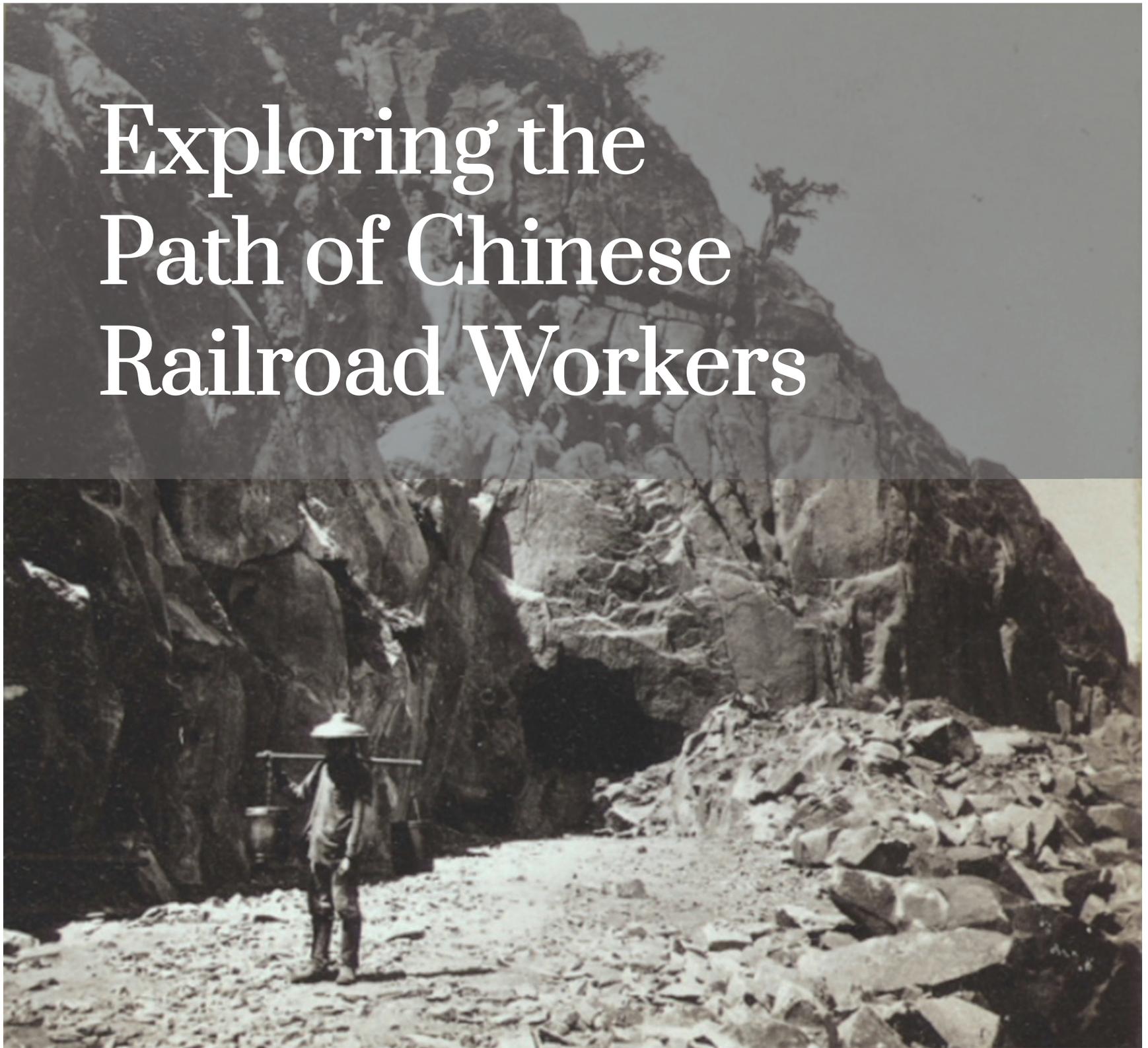


Exploring the Path of Chinese Railroad Workers



A Self-Guided Heritage Tour of
Chinese Railroad Worker Sites
from Auburn to Donner Pass.
Source: ExploreAPAHeritage.com

Publisher:

1882 Foundation

The 1882 Foundation, a non-profit organization, seeks to broaden public awareness of the history and continuing significance of the Chinese Exclusion Act of 1882. It does this through programs to preserve oral history and heritage sites, develop curriculum and teacher workshops, and promote best practices and collaborations among museums and historical societies.

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Forest Service

The Forest Service enriches the lives of Americans in many ways through management of the national forests and grasslands, forestry research, and cooperation with forest managers on State and private lands. Today, the agency manages 193 million acres of forestland and grasslands across the United States. The Forest Service is dedicated to multiple-use management for the sustained yield of renewable resources such as water, forage, wildlife, wood, and recreation. Multiple-use means managing resources under the best combination of uses to benefit the American people while ensuring the productivity of the land and protecting the quality of the environment.

Bureau of Land Management

Bureau of Land Management (BLM) is a federal land managing agency under the Department of the Interior, and BLM manages 258 million acres. Most BLM lands are located in the western United States, including Alaska, and are dominated by extensive grasslands, forests, high mountains, arctic tundra, and deserts. In addition to heritage resources, like Chinese historical sites, the BLM manages a wide variety of other resources and uses on public land, which include: recreation; energy and minerals; timber; forage; wild horse and burro populations; fish and wildlife habitat; wilderness areas; archaeological, paleontological; and other natural heritage values.



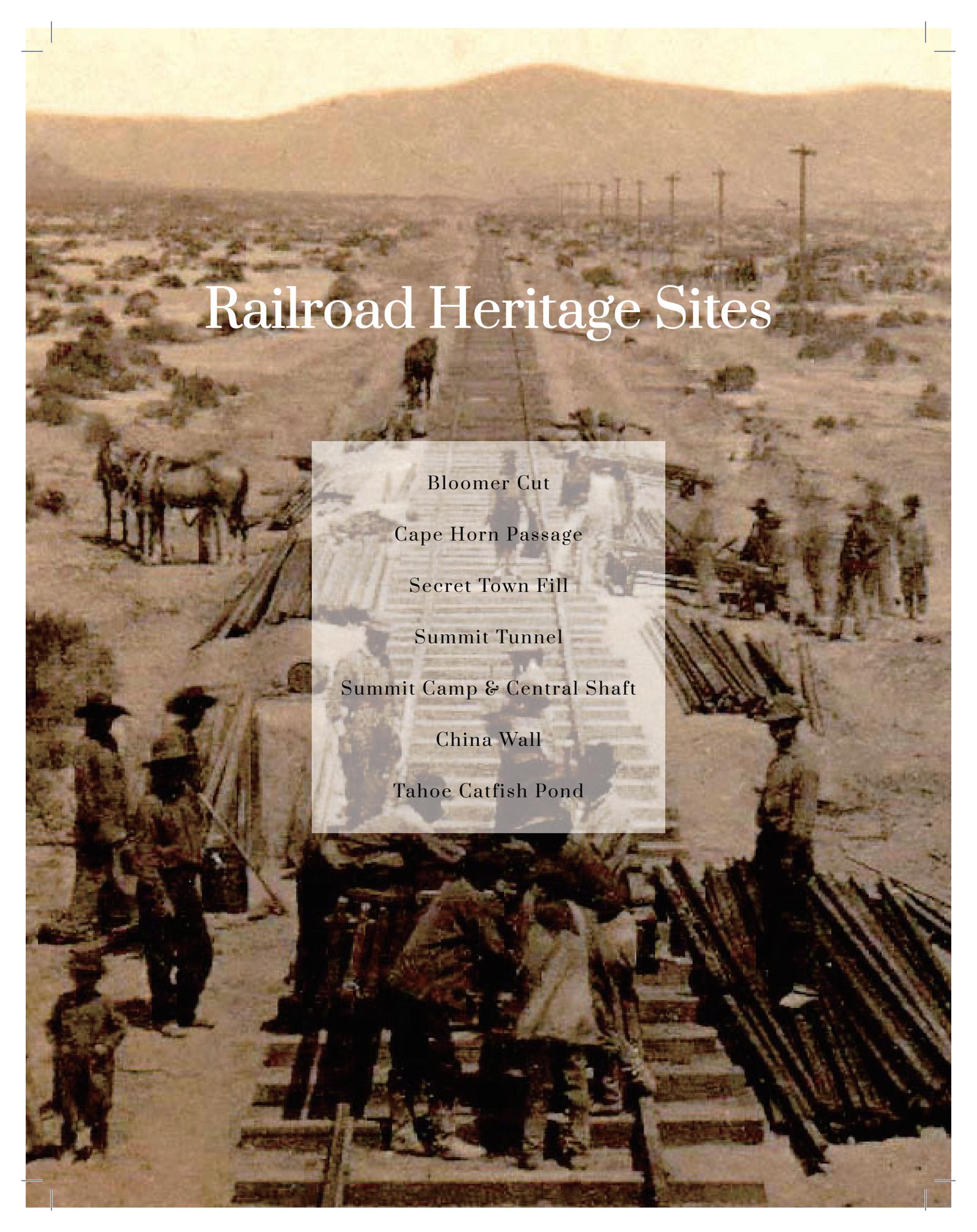
And



**CHINESE
HISTORICAL
SOCIETY OF
AMERICA**

Explore  Heritage

Chief Editor:
Yuexian Huang



Railroad Heritage Sites

Bloomer Cut

Cape Horn Passage

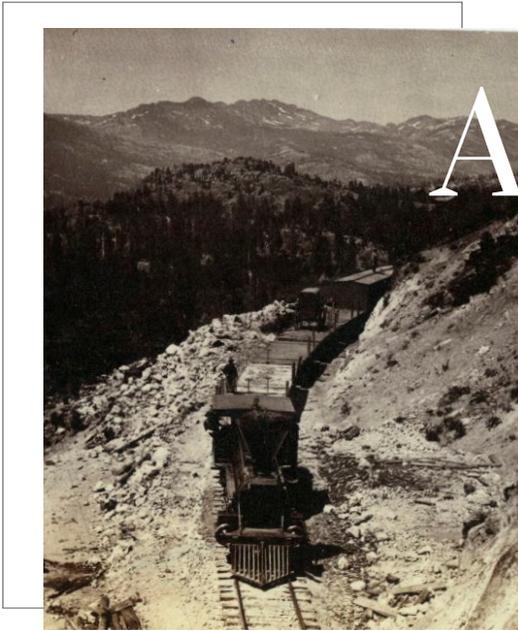
Secret Town Fill

Summit Tunnel

Summit Camp & Central Shaft

China Wall

Tahoe Catfish Pond



Emigrant Gap.
Image courtesy: Stanford University
Archives, Alfred A. Hart Photograph
Collection.

About

Completed in 1869, President Lincoln envisioned a transcontinental railroad, the "Pacific Railroad," to be a national project that would unite the country.

The task to build the western portion of the railroad was assigned to the Central Pacific Railroad Company starting from Sacramento, California with the Union Pacific Railroad building from the east starting from Omaha, Nebraska. Neither company wanted to hire Chinese workers at first. Prejudices at the time prevented them from thinking they could do the demanding work that needed thousands of reliable laborers. But, by the mid-1860s, the difficulty of hiring workers forced the Central Pacific to begin hiring Chinese, many of whom were already in the foothills above Sacramento because of the California Gold Rush. This was where workers were most needed as construction began to ascend the 14,000 feet high Sierra Nevada Mountains.

The Chinese quickly demonstrated their capabilities at Bloomers Cut to so impress the Central Pacific that the company rapidly expanded hiring. They even began recruiting for workers directly from southern China. Poverty and social strife there added reasons for Chinese to join the railroad crews.

"They learn quickly," said Foreman Harvey Strobridge, "do not fight...and are very cleanly in their habits." As work progressed, they earned further respect. Chief Engineer Samuel Montague observed: "The Chinese are faithful and industrious...and soon become skillful in the performance of their duty. Many of them are becoming expert in drilling, blasting, and other departments of rock work."

By the time, the railroad was completed, 12,000 to 15,000 Chinese had been hired. They made up close to 90% of Central Pacific's workforce.

Despite their essential contributions to the national project, festering racial animosity broke out after the railroad's completion. In various degrees and times, state and local laws prevented Chinese from witnessing in courts, voting, owning property or marrying. Schools could refuse to accept Chinese children. In 1882, Congress passed the Chinese Exclusion Act to prohibit Chinese (with limited exceptions) from entering the United States and prevented Chinese from becoming citizens. The anti-Chinese provisions were renewed several times in increasing harshness and made permanent

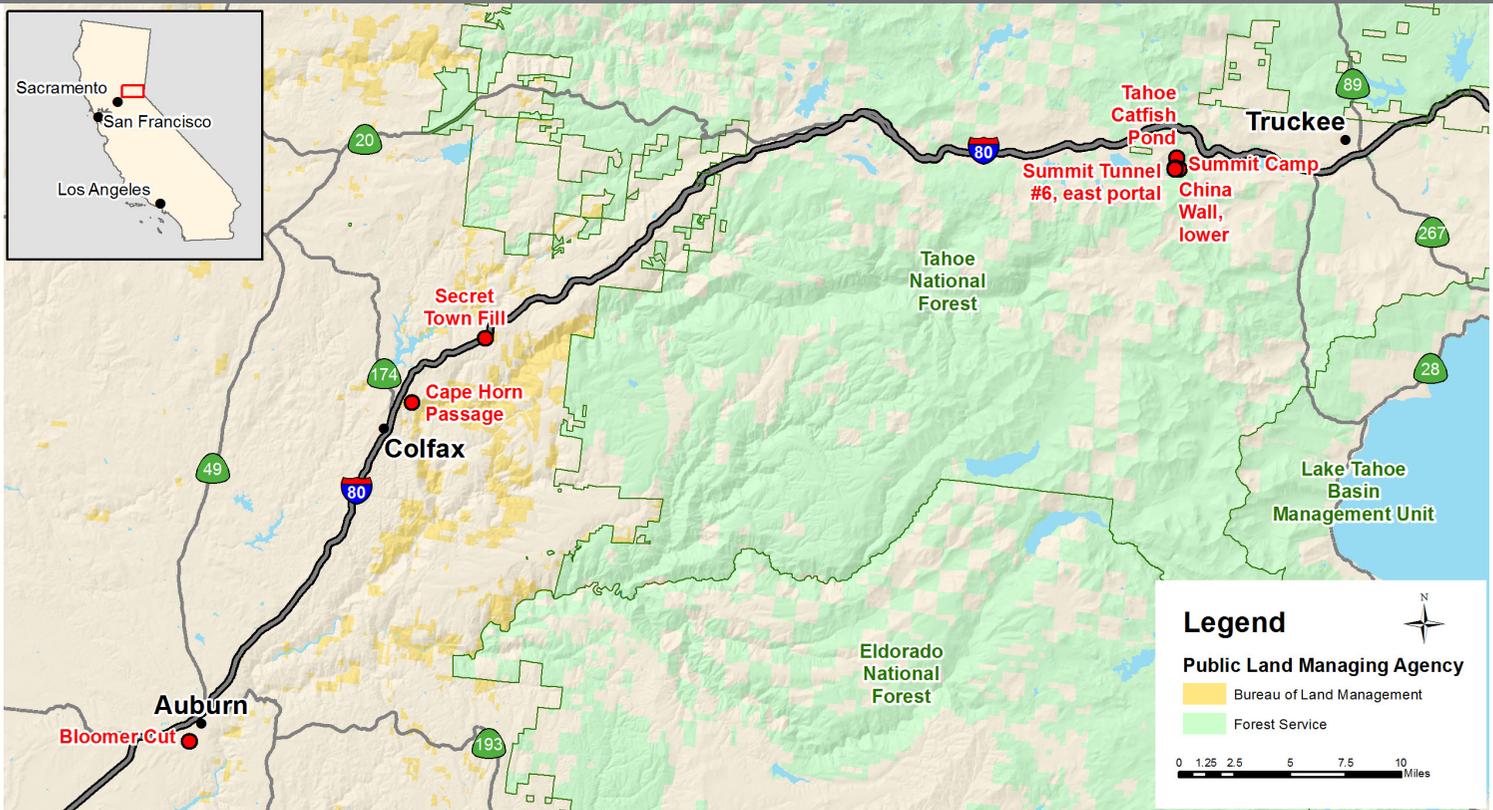
in 1904. The laws were rescinded in 1943. Not until 2011 and 2012 did the US Senate and House of Representatives acknowledge the lasting harms the laws had caused to generations of Chinese Americans.

Many of the railroad sites (abandoned or still in use) are situated on public lands managed by the US Forest Service and Bureau of Land Management. The remarkable RR complex where the Summit Tunnel crossed the Sierra Nevada mountains is located within the Tahoe National Forest.

About Tahoe National Forest

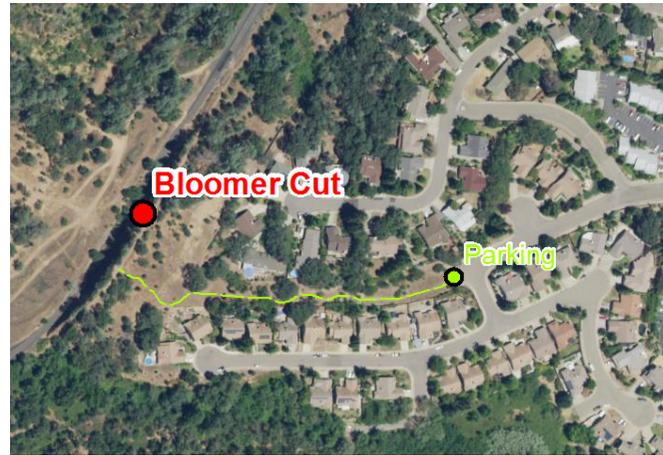
Fifty-five miles from Sacramento and 15 miles from Reno, the 850,000-acre Tahoe National Forest offers an abundance of natural beauty and historic charm. Visitors can choose from a wide range of activities that include exploring beautiful high mountain lakes, fascinating geology of the Sierras, or rugged Granite Chief Wilderness. The 1,500- to 9,400-foot elevation range of the forest provides year-round recreation and ample opportunities for discovering the rich history of the area. Learn more at: www.fs.usda.gov/tahoe.

This brochure serves as a self-guided tour for adventurers interested in exploring heritage sites of Chinese railroad workers. It includes 7 sites in Placer County and Nevada County in California. Learn about their stories in this brochure and go explore yourself!



1

Bloomer Cut



The Central Pacific Railroad (CPR) began work on January 8, 1863. By the spring of 1864, workers had graded 33 miles of the railroad with picks and shovels until they encountered their first significant obstacle – a long, tall ridge at Bloomer Ranch near the town of Auburn. Too steep for trains to cross over, engineers planned for an 800-foot railroad bed through a 63-foot cut at the center of the ridge. Normally, this would not be problem, but the ridge was made of rock suspended in clay to form a massive, natural, concrete wall that broke picks, shovels, and other hand equipment of the era.

The CPR resorted to using black blasting powder --over 500 kegs per day. Expensive and dangerous, one explosion blinded the left eye of the energetic and tall foreman, Harvey Strobridge who was preparing 50 pounds of powder. The Chinese respectfully called Strobridge “Stro” or “One-eyed bossy man.” Two days later, the first train from Sacramento reached Auburn.

During its time, Bloomer Cut was considered a great engineering feat and called the “Eighth Wonder of the World.” The narrow passage today does not meet railroad clearance standards, but regulators made an exception for Bloomer Cut because the sides through it are so solid. Bloomer Cut today looks virtually the same as it did in 1865.

However, urban development has threatened the historic site with proposals to build a bridge over it and to widen the cut to allow for double tracking. Although neither of these proposals have advanced, the threat of development remains on the vacant land across from the cut.

Today, trains generally move westerly through the cut. Trains traveling eastward use another set of tracks parallel to the Bloomer Cut tracks half a mile north.

Access Directions

Traveling east on I-80, exit at Maple Street (Exit 199A). Keep to your right in the “Y” intersection and travel less than 0.1 mi on Lincoln Way to another “Y” intersection. Keep to your right on Sacramento Street, and travel 0.2 miles to a 4-way intersection. Turn right on Auburn-Folsom Road, and travel 1.0 mile to a 4-way intersection and turn right on Herdal Drive. Travel less than 0.2 miles to the end of the Herdal Drive, and park at the dead-end fence a few feet past the intersection with Quinn Way on the left. Continue east hiking through a green belt alley for another 0.2 miles until you reach the top of the cut. A trail to the left leads down to the tracks.

Warning! The tracks are off-limits and it is dangerous to venture into Bloomer Cut on foot. The quietly, coasting trains are difficult to detect around the blind corner and it is difficult to clear the train once inside the narrow cut.



Bloomer Cut. Image courtesy: Sue Fawn Chung.



Cape Horn from Colfax, C-1982. Image Courtesy: E.T. Strobbridge photo.



Cape Horn from Hwy 174 near Colfax. Image Courtesy: David Wiltsee.

Access Directions

From I-80, Exit 135 for State Highway 174 West (Colfax and Grass Valley), head towards the frontage road east of I-80. Head north on this frontage road named, North Canyon Way, which parallels and adjacent to the eastern side of I-80. Drive 0.6 miles north on North Canyon Way to the Stevens Point Trailhead managed by the Bureau of Land Management. Hike about 1 mile on Stevens Trail to get glimpses of the tip of Cape Horn. Alternatively, get a glimpse of Cape Horn Passage in the parking lot of Red Frog Bar & Grill (1001 CA-174, Colfax, CA 95713).

2

Cape Horn Passage

Travelers braved high wind, monstrous waves, and frigid temperatures to sail around the legendary Cape Horn near the southern tip of South America. This was the dangerous route taken by many of the Forty-niners rushing from the East Coast to California in search of gold. Not surprisingly, another formidable passage –an outcropping 1,300 feet above the north fork of the American River— was called “Cape Horn.”

Grading the steep mountainside for a railroad at the Cape Horn passage was thought to be an impossible challenge, considered a preposterous idea at that period. But, the CPR started in the Summer of 1865 by lowering Chinese workers from the top of ridge by rope down to the level of planned railroad bed on the side of the mountain. There, Chinese workers excavated a foothold with picks, shovels, and explosives.

Rocks, large trees, stumps, and other vegetation needed to be removed using explosives that hurled pieces of rocks, trees, and dirt through the air, often accidentally killing workers exposed to the flying debris. Large tree stumps, especially, were difficult because it took over ten barrels of black powder to remove them.

One reporter wrote: “They were a great army laying siege to Nature in her strongest citadel. The rugged mountains looked like stupendous ant hills. They swarmed with Celestials, shoveling, wheeling, carting, drilling and blasting rocks and earth...”



In the Spring of 1866, the railroad bed was completed, and Chinese workers began laying tracks. What had been horrendously dangerous for them became a popular stopping point for train passengers for its dramatic panoramic view.

Tourist guides began dramatizing the building of Cape Horn. National publicity and images portrayed Chinese workers lowered in wicker baskets to drill holes in rock for explosives and yanked up just before the fiery blasts. There are no first-hand accounts that the Cape Horn construction was built this way, but it does make for dramatic storytelling.

Between 1913 and 1915, the railroad discontinued using the original tracks that rounded the mountain in favor of an inside passage that accommodated two tracks through the mountain. In 1929, the railroad reclaimed the outside track for east-bound traffic while the inner tunnel remained mostly for the west-bound trains.

3

Secret Town Fill

After discovering gold in the area, miners wanted to keep the location secret, and hence the location ironically became known as “Secret Town.”

The Transcontinental Railroad ran across an impressive wooden trestle that stretched 1,110 feet 95 feet above a ravine near Secret Town. Because the wooden trestles often caught fire by sparks from train smokestacks, the CPR assigned Chinese workers to shore it up with dirt.

Using hand and mule carts, workers moved an enormous amount of dirt and rubble from the surrounding landscape. The filling of the ravine was completed from the construction of Highway 80. It has made the construction by the Chinese workers less dramatic but the original trestle they built remains buried under the land fill, which was an accomplishment in itself.



Filling in Secret Town. Image Courtesy: UC Berkeley, Hearst (Phoebe A.) Museum of Anthropology.



Secret Town fill from the west in 2018. Image Courtesy: Fred Wong.

Access Directions

On I-80, exit at Secret Town Road (Exit 140), and head north. Turn right on Secret Town Road adjacent and within view of the I-80. Drive easterly on the paved road for 0.7 miles until the pavement transitions to a dirt road. Continue to drive easterly for about 0.53 miles, and you will see the railroad tracks on top of a wall of dirt to your right. Within this wall of dirt is the buried trestle. As you drive along this dirt road, the buried trestle ends about 0.73 miles along this dirt road from the pavement.



4

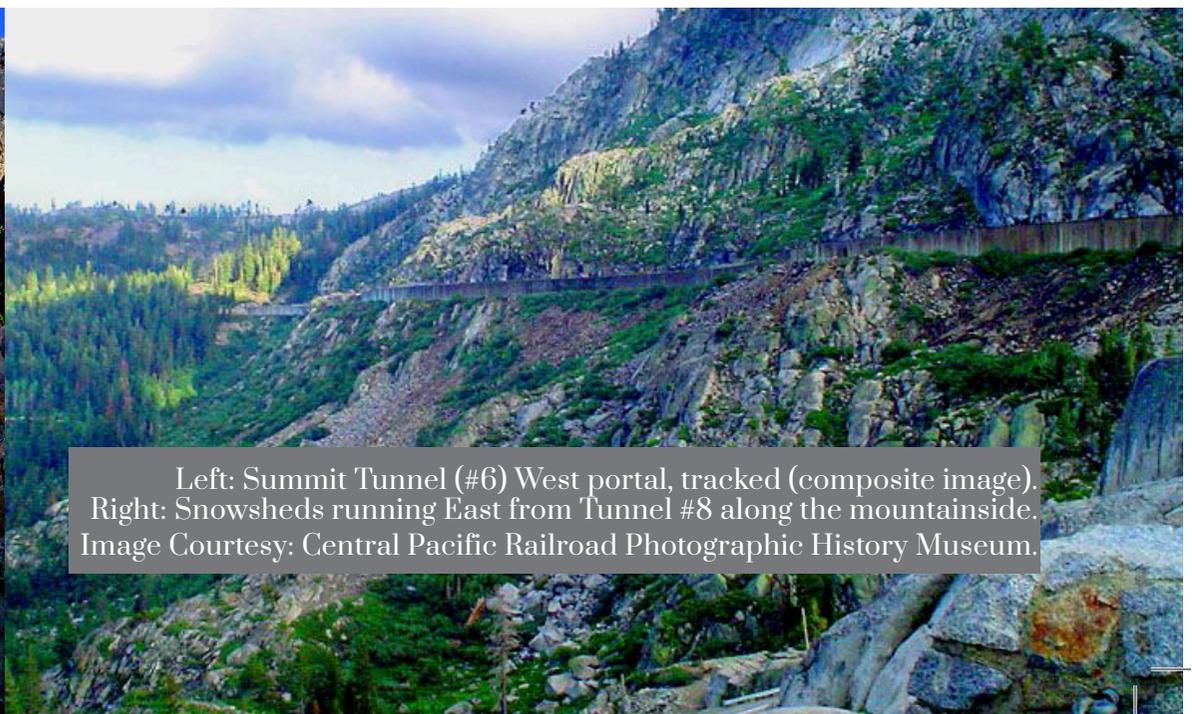
Summit Tunnel

Crossing the Sierra Nevada Mountains required the construction of 15 tunnels. Using iron chisels and 8-pound sledgehammers and candlelight or lanterns, 3-men crew took hours to bore holes 2-feet deep by 5-inch wide through solid granite. One third of the hole was then filled with blasting powder followed by a mixture of clay/hay/sand to secure a fuse. Workers lit it and ran for cover. The explosion of rock debris and dirt flew dangerously into the air and choking dust and black powder residue made breathing difficult for workers who, after each blast, hauled heavy rock into baskets or carts out of the tunnel. Their progress was an excruciating 14 inches per a 24-hour workday. Near the end of the project, the pace quickened to 22 inches per day because they began using the newly developed nitroglycerin.

Aside from dangerous blasting, workers were lost during the harsh winters. Forty-four storms dumped record amounts of snow in the Winter of 1866-67, as

deep as 6 feet per storm. Avalanches swept workers to their deaths. Snow rooms and snow tunnels connected work sites and dormitory buildings, which were bitterly cold wooden structures. The “Summit Camp,” located near the tunnels housed up to 3,000 workers at the height of construction.

Despite these severe working conditions, Chinese laborers were not treated equally to white workers. On June 25, 1867, in one of the largest industrial actions of the time, 5,000 Chinese along the eastern slope between Cisco and Strong’s Canyon, went on strike. They demanded more wages from \$30-\$35 to \$40 per month, reduced workdays from 11 to 10 hours, and shorter shifts in the life-threatening tunnels. Charles Crocker, the Director of Central Pacific, cut off food and other supplies. After eight days, the strike was broken without the demands being met, but there is evidence that pay was raised a few months later.



Left: Summit Tunnel (#6) West portal, tracked (composite image).
Right: Snowsheds running East from Tunnel #8 along the mountainside.
Image Courtesy: Central Pacific Railroad Photographic History Museum.

Two years after beginning work on Tunnel #6 (the Summit Tunnel), Chinese workers broke through the mountain and laid 1,687 feet of track through the granite. The first locomotive passed through on November 30, 1867. It was a monumental achievement of men over mountain.

Nature, however, was still to be reckoned with. Heavy snowstorms prevented locomotives with gigantic plow attachments to adequately remove snow from the tracks for the trains. Consequently, in the Summer of 1867, engineers began designing wooden snow sheds to protect the tracks from avalanches and snow buildup. Two years later, workers had built 37 miles of sheds throughout the mountain.

As processes to remove snow improved, snow sheds became unnecessary, and the wooden sheds were gradually replaced by concrete sheds, which remain today.

Trains no longer use the Summit Tunnel nor the portion of the tracks that crosses Donner Pass. The tracks and rails have been removed.

The Union Pacific Railroad now owns the railroad beds and tunnels. The US Forest Service manages the surface area surrounding them, including wonderful hiking, biking, and historic trails near ancient petroglyphs, the location of the fabled Donner Party, Emmigrant Pass Trail, and the Lincoln Highway.

Very unfortunately, the historic tunnels that display and tell of the engineering accomplishment and of the heroic labor that constructed them (for which so many workers lost their lives) have fallen victim to public disregard and extremely heavy graffiti vandalism and disrespect.

Many hikers and visitors ignore the fact that the tunnels are not opened to the public. They are dark and dangerous, requiring sturdy shoes and

Access Directions

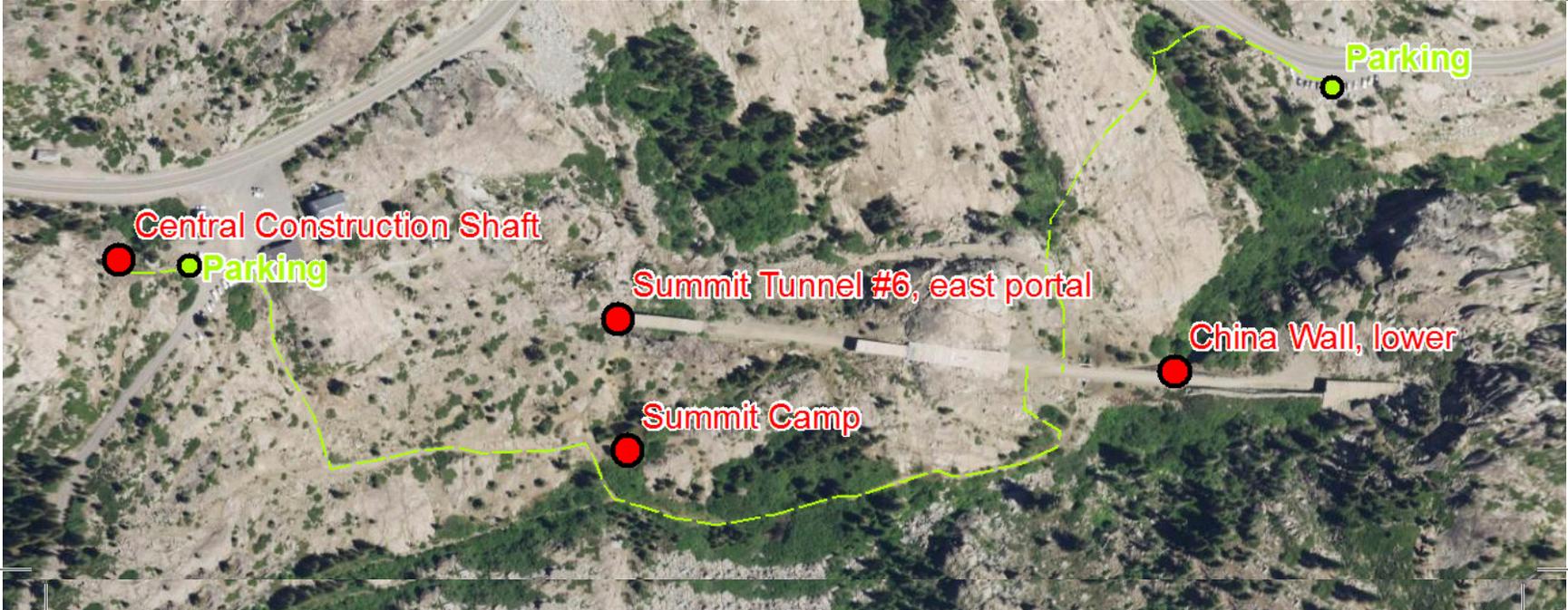
Traveling east on I-80, exit at Soda Springs – Norden (Exit #174), and turn right on Donner Pass Road. Travel 3.5 miles and turn right on to Sugar Bowl Road. Travel 0.1 mile and turn left at the Welcome sign onto Old Donner Summit Road. Drive a third of a mile, and park at the Sugar Bowl Academy parking lot to your right. To the left (west) of the road you will find an interpretive sign for the Central Shaft site, 100 feet to the west. To the right (east) you can walk to Summit Camp, Summit Tunnel #6 & #7, and China Wall (see map). Alternatively, continue driving turning right on Donner Pass Road an additional 0.7 miles to the China Wall parking lot vista on your right, and park at the small pull-out parking lot. Here you will have a good view of the China Wall and the east entrance to the Summit Tunnel. You can also hike up to China Wall and Summit Tunnel from this area (see map).



The blizzard of 1866 in the Sierras.
Image Courtesy:Linda Hall Library.



View of Tunnels #6, 7, & 8 from above Summit Tunnel.
Image Courtesy: Central Pacific Railroad Photographic History Museum.



Summit Camp & Central Shaft

Camps for workers followed the movement of the rail line. Federal Railroad Inspectors in 1867 described them as being “built about one mile apart and consist of storehouses, power houses, blacksmith shops, kitchen, eating and sleeping rooms, and stables for mules, horses and oxen.” As the tracks progressed, the camps moved as well. Most of the camp structures were built to be temporary.

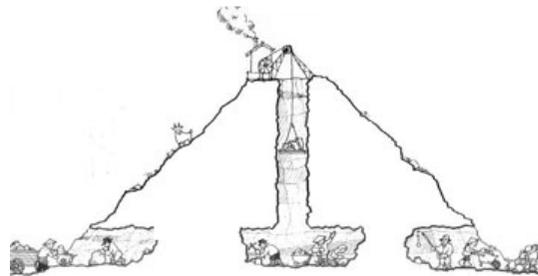
The “Summit Camp,” however, was unique. Located above the east entrance to the Summit Tunnel (Tunnel #6), this camp was in use continually from 1865 to 1869. Its buildings and layout were constructed to withstand multiple harsh winters with one- and two-story high dormitories strong enough to protect the workers from heavy snows. Working conditions, however, were bitterly rough as laborers shuffled back and forth between their dorms and the tunnel work sites under the snow for months.

The building outlines can still be made out on the ground where up to 3,000 Chinese workers lived, but little else remains. Archaeologists have found many historic objects to chronicle the life of the Summit Camp’s Chinese inhabitants -- Chinese coins, porcelain rice bowls, clay jugs, medicinal tins, and opium/tobacco pipes.

Construction for highways and trails, and roaming tourists unaware of the site’s historic significance threaten preservation efforts.

Just west of Summit Camp is the remarkable Central Shaft to the Summit Tunnel. Despite tunneling in two directions toward the center, progress was too slow.

Chinese workers were assigned to dig an 8-foot by 12-foot vertical shaft through solid granite slabs to a depth of 75 feet where engineers had determined would be the center of the Summit Tunnel.



From that central point, Chinese laborers began digging outward. A steam engine from a locomotive was dismantled and reassembled at top of the shaft to send men down and haul rock and debris up. With simultaneous construction on 4 faces of the tunnel, progress moved forward faster.

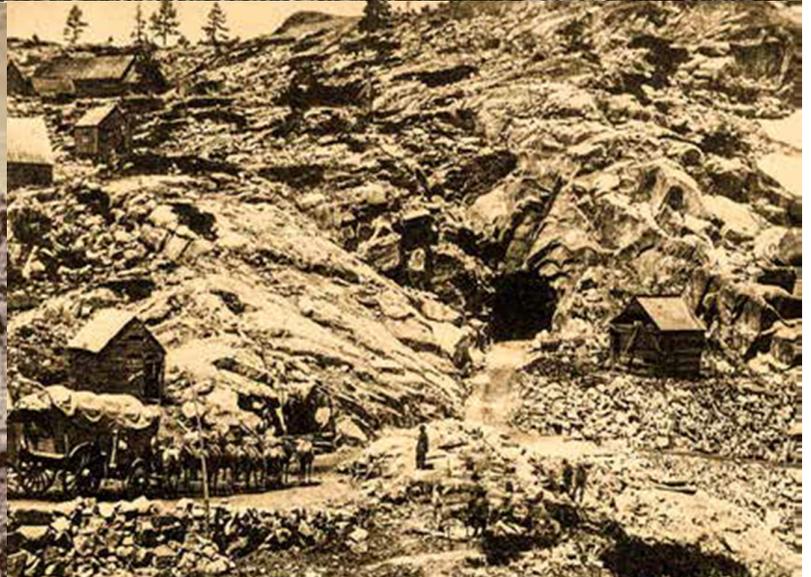
The opening of the Central Shaft is now covered by a heavy metal sheet. Its unimposing appearance belies a remarkable engineering and construction accomplishment.



Shaft house on the right with other buildings of Summit Camp.
Image Courtesy: Stanford University Archives, Alfred A. Hart Photograph Collection.



Camp near Summit Tunnel in 1865.
Image Courtesy: Stanford University Archives,
Alfred A. Hart Photograph Collection.



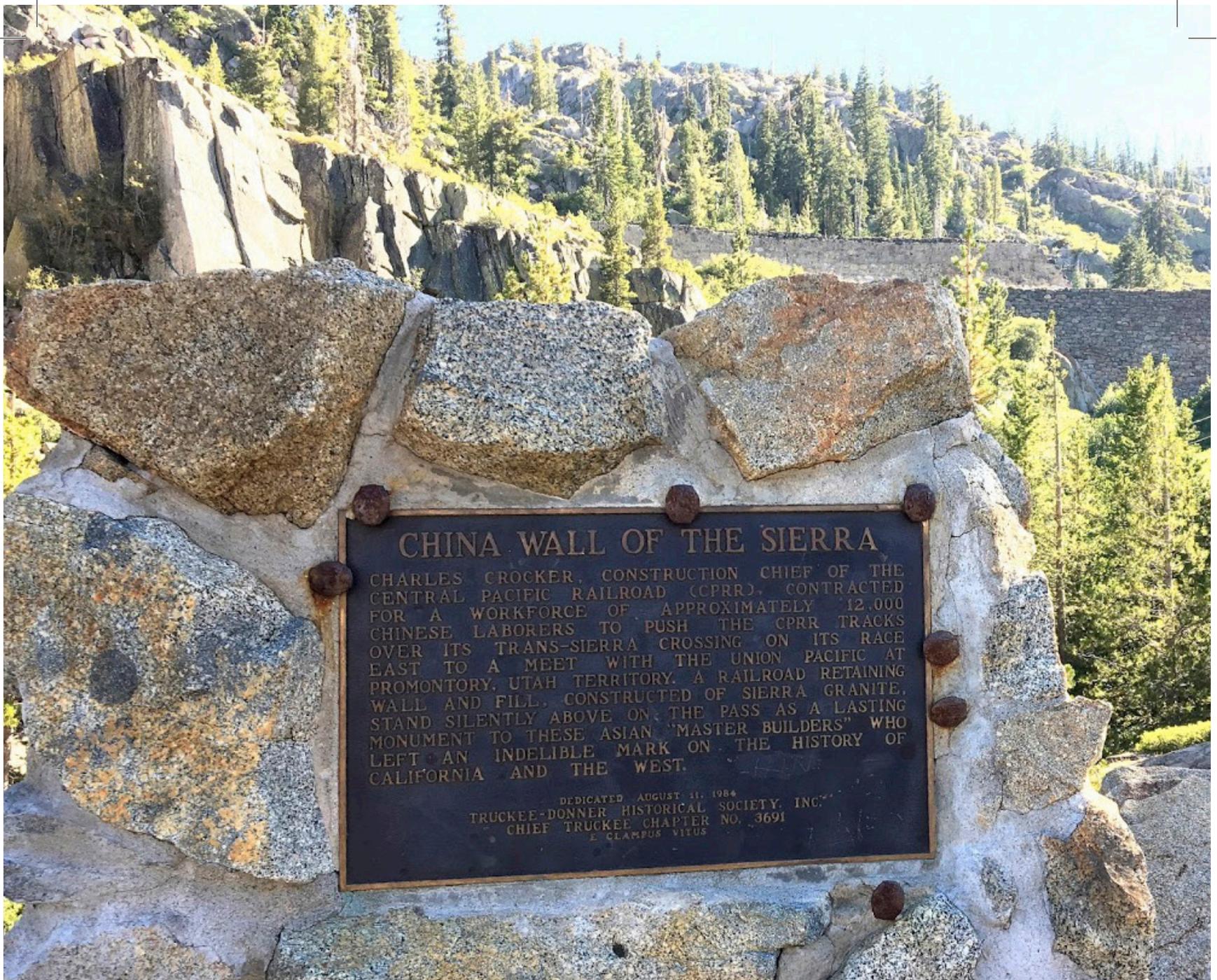
East Portals of Summit Tunnel and Wagon Road.
Image Courtesy: Stanford University Archives,
Alfred A. Hart Photograph Collection.



Summit Camp today.
Image Courtesy: Mobile Historical Research Team.



Steel panel over the central construction shaft.
Image Courtesy: Ted Gong



Plaque of China Wall of the Sierra by Truckee-Donner Historical Society Inc. Image Courtesy: Dan Brekke.



The 75-foot lower wall and the upper wall at the entrance to tunnel #8.
Image Courtesy: Peter Epstein.

6

China Wall

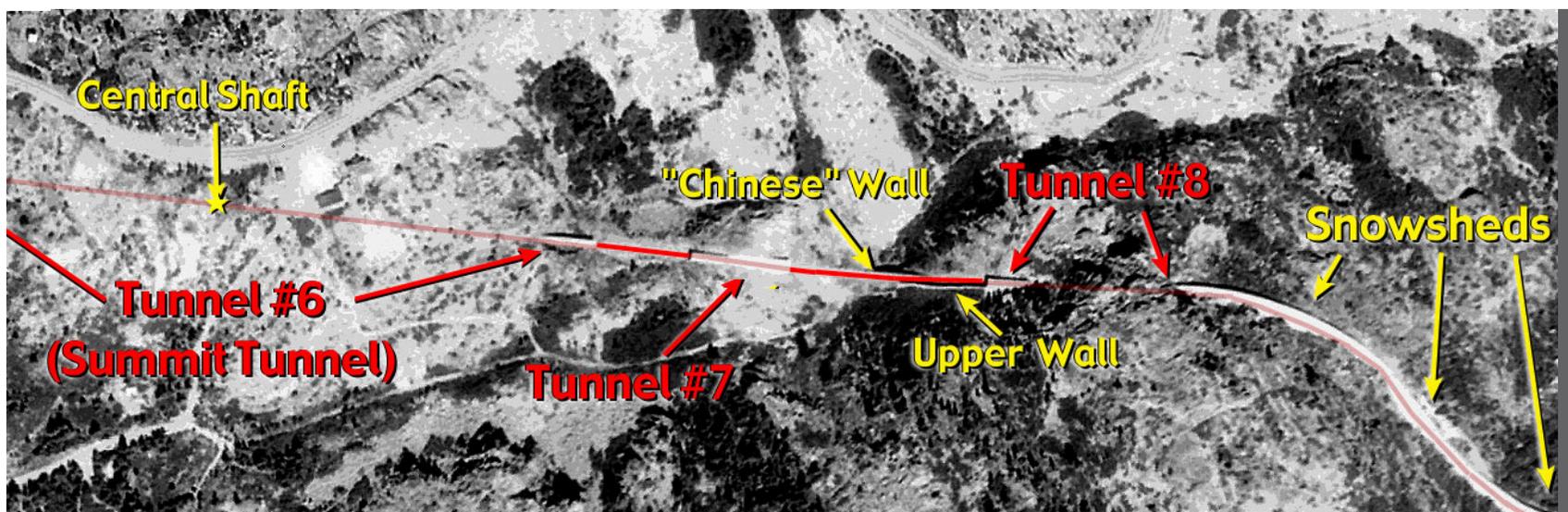
Between tunnels #7 and #8, a stone wall still stands more than 150 years after its construction. This retaining wall, consisting of upper and lower parts, is called “China Wall” or “Chinese Wall” to commemorate the Chinese workers and their incredible work in the Sierra Nevada mountains.

Tunnels #7 and #8 are short tunnels that required a ravine between them to be filled. Stones (likely removed from Tunnel #7) were chiseled into blocks 40 to 50 inches long and 12 to 20 inches high. With smaller stones to stabilize the structure, the blocks were fitted into the ravine at two levels. The lower wall, approximately 75 feet high, supported the railroad bed running from tunnel to tunnel. The upper wall was shorter but held the embankment above the entrance to Tunnel #8.

Built without any mortar, the China Wall illustrated the stone masonry skills of the Chinese workers whose work endures 150 years later and after decades of countless trains rolling over it.

On August 11, 1984, the Truckee-Donner Historical Society placed a plaque at the highway turnout below the site to tell the historic story often neglected in standard textbooks and American folk lore. Indeed, throughout the monumentally significant historic complex at the summit pass, there are inexplicably no State nor Federal markers.

Please see the direction of Summit Tunnel to learn about how to get there.



Grade of the original Central Pacific Railroad grade at Donner Pass in use from 1868 to 1993.

Image Courtesy: CPRR.org

Tahoe Catfish Pond

Locally known as “Catfish Pond,” this green pool of water is home to dozens of small, whiskered catfish. Catfish are not native to the Sierras, nor are they naturally found at such high elevations (approximately 7,000 feet). There aren't any streams feeding into the pond. Local historians believe catfish were stocked there in the 1860s to provide fresh food for Chinese workers hired to work on the railroad, particularly to China Camp which was occupied year-round for several years.

The descendants of the stocked fish have survived in the pristine pond for over 150 years. They continue to thrive in the unusual environment even as the pond is covered with ten feet of snow each winter.

Chinese railroad workers were generally in better health than their counterparts. While Irish workers ate the “manly” diet of beans and beef, the Chinese diet was more varied. It included more nutritious food such as dried fish, vegetables, dried oysters and rice.

Non-Chinese workers drank water from communal dippers, but Chinese preferred to drink tea and hot water which required a boiling process that killed illness-causing microbes which reduced incidences

of dysentery and other illness.

The Central Pacific Railroad gave exclusive rights to Sisson, Wallace and Company to provide food and other provisions to the railroad workers. As the tracks extended, a train car labeled “China Store” followed to allow workers to buy items.

In groups of 12 to 30, crews paid for a Chinese cook to prepare meals. These cooks were highly valued, often compensated better than the laborers. They brewed barrels of tea each day in addition to preparing all aspects of meals.

Bone remains found at camps confirm that the Chinese supplemented their diet with fish from local waterbodies. Camps in the Sierra Nevada's, revealed bones from pigs and cattle to establish that locally sourced pork and beef were consumed by Chinese workers even in remote areas where many of them were employed to cut the tremendous amount of lumber needed to support railroad construction and provide fuel for locomotives.

In many ways, Chinese workers had adapted to the foreign land to maintain their rich and varied food culture and customs even while working at grueling and dangerous jobs, away from family and home.



Panoramic view of the pond. Image courtesy: USDA Forest Service.



Catfish can still be seen today in this pool of water.
Image Courtesy: USDA Forest Service.

Access Directions

Traveling east on I-80, exit at Soda Springs – Norden (Exit #174), and turn right on Donner Pass Road. Travel 3.6 miles and enter the parking lot of the Donner Ski Ranch to your left, and park (see map). Begin hiking east along Donner Pass Road for about 0.1 miles until you see the Pacific Crest Trail on your left. Turn left, and hike on the famous trail for about 0.3 miles toward the northeast. Depart the Pacific Crest Trail on another trail towards the north, and travel another 0.2 miles until you reach a small pond about 225 x 225 feet about 1000 feet east of the much larger Lake Angela.

For more information, please visit ExploreAPAHeritage.com.

