

# The Donner Summit

# Heirloom



History and stories of the Donner Summit Historical Society and the most historically significant square mile in California.

September, 2023 issue #181

## Native Americans & Donner Summit

Everywhere you go on Donner Summit you run into evidence of its rich history, making Donner Summit the most historically significant square mile in California and maybe the entire Western United States. This is, of course, incontrovertible but as a reminder there is the physical evidence, the result of the coming of European Americans: wagon train trails, the first transcontinental railroad, the first transcontinental highway, the first transcontinental air route, the first transcontinental telephone line, the interstate highway, old ski areas, historic buildings, cabin ruins, sheep and ice industry artifacts, and of course more. Those are the big events; each has a story and each has a place in the development of California and California's place in the world. Then there are many more really good stories not directly attached to those events like the first person to cross the Sierra by bicycle and who then bicycled across the country and around the world.

More evidence of Donner Summit's unique history goes back to the Native Americans who occupied Donner Summit in the summers before and after the arrival of the European Americans. Their presence left behind artifacts that go back thousands of years but they are not so obvious; you have to look hard. One can be right on top of metates, for example (page 10), and not see them. It takes a close look and a good touch. Then there are basalt flakes from knapping tools that almost everyone would pass by unless they knew what they were seeing.



The DSHS has published book reviews, developed exhibits, printed a brochure, and done some small articles about the Native Americans on Donner Summit. In this edition of the Heirloom we bring all of that together as an authoritative source for those interested in the local Native Americans. To get there we used a variety of sources (see later in this issue) with primary focus on two books by Willis Gortner (out of print but available in the Truckee library), Ancient Rock Carvings of the Central Sierra: The North Fork Indian Petroglyphs, and Martis Indians: Ancient Tribe of the Sierra Nevada. Mr. Gortner was lucky enough to have a cabin at the Cedars on Donner Summit where there is a plethora of ancient Native American artifacts and sites. It's all private property, however, so you can't visit and will have to be satisfied with this Heirloom edition. Another big source of information for this Heirloom issue was on-site visits to perhaps a dozen petroglyph sites, visits to mortar and cupule sites, basalt flake detritus, and other evidence of occupation. In those visits we followed in the wake of archeologists affirming their discoveries, and then we made some of our own.

We hope the text and the many pictures and drawings will be interesting.

# Story Locations in this Issue

Summit Valley - site of dozens of mortars

The Cedars - private property - site of many Native American sites

## DONNER SUMMIT



Snow Mtn. pg 7

Soda Springs pg 14-15

## Finding Your Way Through Donner Summit History

We've now passed 150 issues of the Heirloom: thousands of pages, thousands of pictures, and hundreds of subjects. You've probably begun to realize that you cannot keep all the history in your head. Even if you remember it all, retrieval is difficult.

Fortunately John Albert Index invented the index\* and one of the choices we made back at the birth of the DSHS was to index all our Heirloom articles and pictures. We've diligently kept up the indices so that they are many pages long, full of alphabetized titles and subjects. Go to our website and to any of the Heirloom pages (one for each year) and you'll find links to the Heirloom indices.

One of the strengths of the DSHS is the incomparable historical photograph collection. The collection is thousands of pictures and again the sheer number makes finding anything in particular, difficult. Avoid the long URL by going to our website and clicking on the "photographs" link and then to the "historic photo collection link." A third link, to the Flickr URL will take you to those thousands of searchable historical photographs of Donner Summit. Have fun.

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\*historical society humor



California must have been an interesting place in pre-Columbian times. It was the most populated area on the continent and the most diverse ethnically and linguistically. There were nine language families in the Sierra alone.

## The Martis Culture

The first known residents of Donner Summit were a group of Native Americans called the Martis. They were only semi-permanent, occupying Summit Valley (see the map below from an archeological study in Serene Lakes in preparation for a large scale development that was never built) in summers and retreating to the foothills on both sides of the Central Sierra in the winters.

The Martis left evidence of their presence in many areas of the summit in the form of petroglyphs; mortars, cupules, metates; and basalt flakes left over from knapping projectile points. Some archeologists have also found boulders they think were arranged as hunting blinds.

The Martis occupied the summit from about 2,000 B.C. to 500 A.D. Although archeologists can make hypotheses, no one knows for sure from whom the Martis were descended, who their descendants were, or where they went. Answering those questions is hard because there was a hiatus in summer occupation after the departure of the Martis and until the next culture took up summer residence. About 1,000 C.E. the Kings Beach Culture appeared on Donner Summit. With that hiatus there is no direct link. There are also large cultural differences between the Martis and the Kings Beach Culture.

The Martis Culture arose when the climate of Western Nevada changed becoming cooler and wetter. Lake Tahoe filled and overflowed down the Truckee River to Pyramid Lake in today's Nevada. The Sierra became more hospitable in climate and food. Foods increased both in type and quantity and game increased. See "What Was on the Menu" later on in this issue.

The Martis Culture is described as distinctive by the use of basalt and little obsidian; large heavy projectile points that are poorly chipped and variable in form; use of manos (smooth oval rocks used on metates to grind seeds into flour); metates (large grinding slicks; boatstones (weights used to improve spear throwing using atlatls); hunting and seed gathering; basalt scrapers; no use of ceremonial objects; and flaked drills and awls. The culture was only discovered relatively recently, by R. F. Heizer and A. B. Elsasser, two California Indian scholars from U.C. Berkeley while building a cabin at South Lake Tahoe in 1953.

The Martis lasted until about 500 A.D. when the climate became drier. Maybe more importantly, simultaneously, the bow and arrow was developed by the area's Native Americans. With that change chert and obsidian were valued instead of local Donner Summit basalt. Those are not available on the Sierra Crest though. The nearest source of obsidian is the Tuolumne area near Yosemite, which necessitated trade or moving. The Martis had not done much trading prior to their disappearance, although they did trade for shells with California Indians.

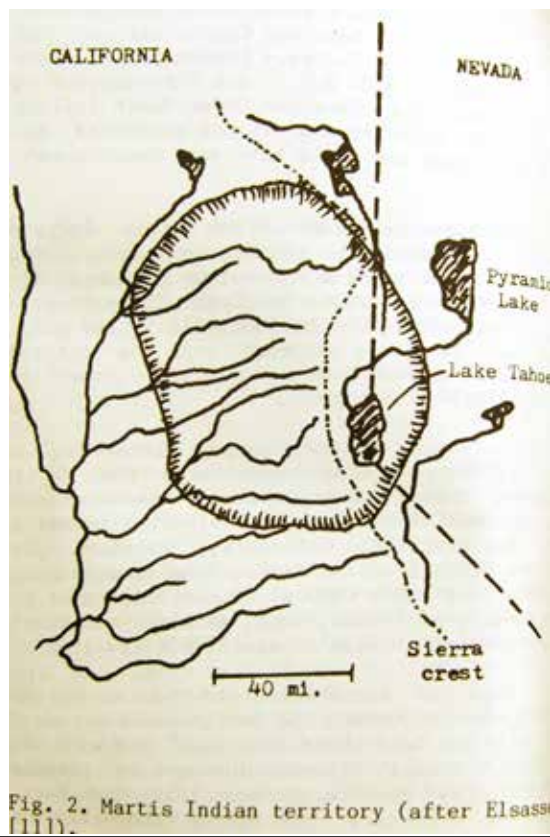
One change is clear. The Martis had worked almost exclusively with basalt to craft tools and projectile points, like the ones seen here on the next page.

No one knows what happened but Willis Gortner, the author of Martis Indians: Ancient Tribe of the Sierra Nevada (mentioned above and see below) did hypothesize. Some new Native Americans appeared in the Yosemite area just about the same time and their projectile points resembled the Martis'. Perhaps the

The Martis Culture was distinctive

- Use of basalt and little obsidian;
- Large heavy projectile points that are poorly chipped and variable in form;
- Use of manos (smooth oval rocks used on metates to grind seeds into flour);
- Metates (large grinding slicks);
- Boatstones (weights used to improve spear throwing using atlatls);
- Hunting and seed gathering;
- Basalt scrapers;
- No use of ceremonial objects; and
- Flaked drills and awls.

Petroglyphs esp. the bear paw on horizontal surfaces - see the next two pages.







Martis moved to Yosemite where the climate and game were better? Maybe they moved closer to the obsidian they would now need for their arrows? Yosemite is only 70-100 miles or so from the area the Martis used to inhabit.

Another salient question is who were the descendants of the Martis in the area? A first thought would be the Washo which is what many people think, but there was a big time gap and differences between the cultures that Gortner thinks makes it improbable. The Washo are a desert people who never occupied the higher Sierra elevations. Maybe Gortner's title should have been "Martis Indians: Mysterious Tribe of the Sierra Nevada."



Long after the Martis left, and into the late 19th Century, the Maidu, Native Americans from the California side of the Sierra occupied the Summit much as the Martis had as did the Washo, from the Nevada side.

## The Petroglyphs

The most interesting evidence of the Martis' presence on Donner Summit are the petroglyphs found in dozens of places. They are fascinating because they are so mysterious and because they took such effort. The pictures here are Donner Summit area petroglyphs and have been digitally enhanced for easier viewing. Similar symbols are found in many places in the northern Sierra Nevada, usually on gently sloping granite slabs with spectacular views of surrounding peaks. They are not found where there are not those views. This would indicate at least a great appreciation for the scenery and perhaps some kind of religious connection to the mountain peaks. The incising of petroglyphs on granite ceased with the Martis departure from Donner Summit. Petroglyphs were not part of the cultures of subsequent summer occupants.



Projectile points found in Summit Valley

Archeologists estimate that the petroglyphs in this area are as much as 4,000 years old. They were created by pecking through the surface of the glaciated bedrock using a tool called a hammerstone. Most are geometric shapes – wavy lines, circles, and zigzags. Human and animal forms, such as stick figures and deer or bear tracks, are much less



common.

An example of the depth of Willis Gortner's study is his discussion of the petroglyphs' age and how that can be determined. If you can pin down who did them, you can get an approximation of age. You can study the patina of the rock carvings compared to the surrounding rock. For example Gort-

On the shore of the Ice Lakes, in Anderson Valley, the writer picked up a skillfully cut and very sharp spear-head of grayish-white flint, which must have been over four inches long before the barbed end was lost. Similar materials to the above were used, and still are used to some extent, by the mountain Indians in the northern Sierra.

November, 1872  
Overland Monthly Magazine









Whereas most Donner Summit petroglyphs are measured in inches, this one is about eight feet long

ner discusses the names carved into rocks around the Cedars done by tourists at the Summit Soda Springs Hotel a hundred years ago compared to the Native American petroglyphs in the same areas.

“By contrast, the immediately adjacent but much more ancient Indian rock carvings appear consistently weathered with a dull stain reappearing in the incised lines, though not nearly approaching the depth of color of the pink crust of the granite bedrock itself. Obviously, the petroglyphs at this site are many hundreds of years older than the 'modern' carvings...”

One can also do carbon-14 dating on artifacts or fire remains nearby. Finally, one can analyze spear and arrow points found nearby. Their styles changed over the ages so if carvings can be linked to a particular style, then age can be determined.

All of the methods are indeterminate but taken together, especially following the analysis of spear points, Gortner felt the petroglyphs on Donner Summit could be 3,500 years old.

These petroglyphs are so old they probably predate the bow and arrow.

## Meaning

The second question people ask, after age, is about the meaning of the petroglyphs. They were probably not doodles or ancient graffiti, given the difficulty of making the glyphs and the time required. They were also not generally made in Martis camping areas. That means the Martis had to travel to their petroglyph sites which makes the work harder. Gortner discusses possible meanings and uses: astronomical, artistic, record keeping, maps, personal or cultural records, instructions, passage of time, shamanistic, or totemic. They are all abstract recto-linear symbols and there are very few animals or humans among the abstracts. The symbolism is obscure but because so many of the elements are repeated within sites and site to site, they “must have had meaning to the prehistoric tribes there.”

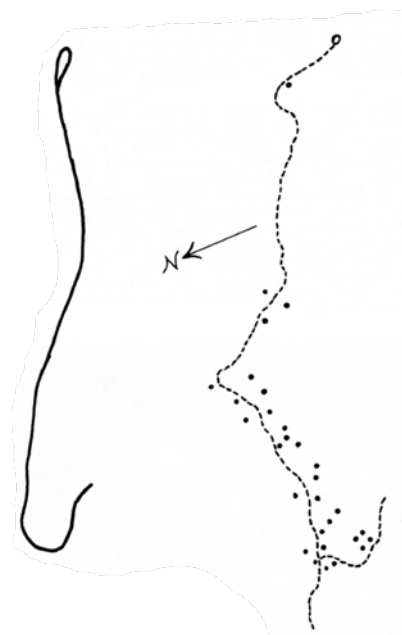
“A more likely interpretation of many symbols is that they reflect the family totem...” is Gortner’s preferred meaning.

Maybe, maybe not. We’ll never know. No Native Americans alive today have any knowledge of the meaning of what the ancestors did, assuming the current Washo are related to the Martis Culture. The meanings are lost to history



and we are left to wonder. For example, might the many bear glyphs be prayers for good hunting or records of kills rather than or in addition to being totems?

Gortner does make a cogent argument regarding meaning by contradicting some experts who said they cannot be maps. Gortner shows that at least at a couple of sites meanderings on the granite match the river and possible game migration





Donner Summit's Martis Culture petroglyphs are usually on gently sloping granite slabs with spectacular views of surrounding peaks. Above is the view from the Wabena petroglyph site of Snow Mountain looking southwest. Right is the view looking north. The canyon is the No. Fork of the American River, four thousand feet deep. Spectacular.



routes. For example, the graphic here on the previous page shows a nine foot long petroglyph (left) juxtaposed to a tracing of the North Fork of the American River (right). The dots represent a few petroglyph sites in the area of the Cedars.

## Seeing the Petroglyphs

Just below Rainbow Bridge are the most accessible Summit petroglyphs and are marked by a USFS monument. It is an extensive petroglyph site that contains over 200 rock art elements. Although the petroglyphs here are hard to see they are fascinating. As the sun rises and the light changes the visible petroglyphs change. Prolong your visit and see how many you can find. Look about carefully so you do not walk on the petroglyphs.

There are many other petroglyph sites on Donner Summit and extending throughout the area used by the Martis. Many are on private property and so, inaccessible. Others are on USFS lands but the Forest Service discourages access, refusing to allow any commercial activity such as tours. This is at the behest of the Washo who consider the sites sacred. This also prevents vandalism as has happened in some places with graffiti overlaying the petroglyphs or people stealing exfoliating granite that contains petroglyphs. Unfortunately the restricted access also prevents people from experiencing the petroglyphs, meaning they are accessible only to people "in the know." So access is difficult unless you know where to go and the protection will keep them inaccessible until they disappear.

The rock art sites are exposed to the harsh environment of the high Sierra. The natural process of exfoliation (peeling away of layers of rock due to the freezing and expansion of water) is at work on Sierra granite. This leaves the petroglyphs fragile and vulnerable to destruction.

Someday the petroglyphs will be gone and along with them will go the tangible record of the first visitors to Donner Summit.

## Locations

Gortner's discussion of the petroglyph locations is interesting. Different from other petroglyphs in other areas, Donner Summit petroglyphs are always on open bedrock outcroppings with views of major peaks. They are never on vertical faces or on boulders. They are on granite as well as basalt. That said, Gortner did not know about some possibly even more ancient petroglyphs on a boulder in one spot in Summit Valley. Other than that all the dozens of rock carving spots in the Summit and environs conform to his analysis. They were also probably located on seasonal game migration routes.

"With no exception, each of the sites that were discovered was within 20-30 feet of a magnificent view of an important mountain, and frequently a panorama of the peaks — Mount Lincoln, Crow's Nest, Anderson Peak, Tinkers Knob, Granite Chief,



Needles Peak, Lyon Peak, Snow Mountain, and Devil's Peak. Any outdoor person at such a spot will be thrilled by such a sight; the prehistoric Indians who left these petroglyphs must have had some of the same feeling of awe, or it was incorporated in their religion.”

In Ancient Rock carvings... Gorter cites many sources and explores the different aspects related to petroglyphs. For example, in discussing how the glyphs were made he quotes a source explaining how long it took to make rock carvings. They took 30 to 115 minutes at 126 pecks to the minute with a lizard requiring 15,000 blows of a rock against the “canvas” where the petroglyph would be. One final fact shows just how difficult petroglyph production is – in case you want to try it out. On a hardness scale of 1-10 with talc being one and diamonds being ten, granite rates at 6-8. It is one of the hardest rocks on the planet and that gives us an appreciation of the work done by the Martis and how important they must have been to the culture. We can see why the Washo consider the sites sacred.

### Later Visitors to Donner Summit

The Martis disappeared from Donner Summit about 500 C.E. perhaps making their way south to the Yosemite area. There was a hiatus in visitation until about 1000 C.E.

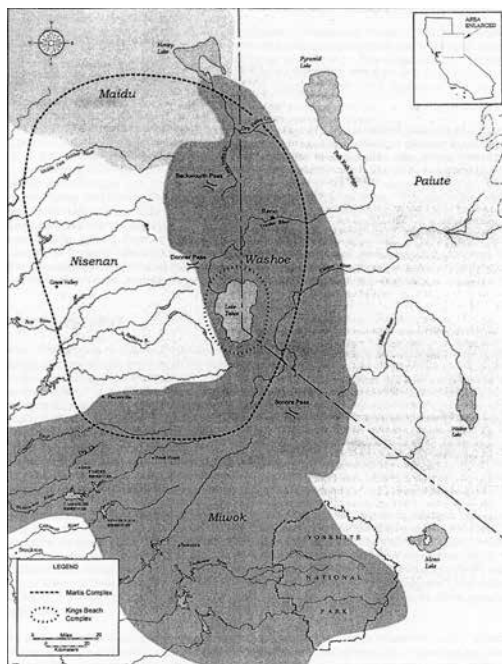


Figure 4. Archaeological Cultures and Ethnographic Map.



“...at the Summit Soda Springs.... The Indians had chosen one of the most charmingly picturesque spots for an arrow-head factory. But here something else than an instinct for the beautiful moved them in their choice of locality. There is find trout and salmon fishing in the river...”

Indians soda springs

from Overland Monthly 12/73 Chips from an Indian Workshop  
B. P. Avery





Mortar in Summit Valley with some basalt chips.

Then the Summit area was a meeting place for the Maidu (Nisenan), Miwok, and Washo whose historical boundaries came together at the Summit. See the map on the previous page. At the summit the California Indians traded shells, obsidian, and acorns for dried fish from Pyramid Lake.

## The Mortars and Metates

The Martis and the Kings Beach Cultures occupied Summit Valley on Donner Summit during summers for thousands of years and left behind evidence of their residence in many places. The mortars, mostly ground into glacial erratics (large boulders carried along by glaciers and then dropped as glaciers melted), are not as picturesque or mysterious as the petroglyphs carved into the Sierra granite bedrock in many places, but they are maybe much more impressive.

The mortars are almost always several inches deep. Granite

is one of the hardest rocks on earth. Imagine the time it took Native American women to grind those depressions into the rock while grinding only foods like nuts, seeds and berries. In many of the mortar sites there are multiple mortars which archeologists called “gossip rocks” or as one local member of the DSHS Mobile Historical Research Team suggested, “party central.” We can imagine the women using the mortars to prepare their meals and talking with each other. At the mortar sites women passed on important lessons to the young girls who played and listened nearby. Generation after generation little bits of culture were passed on with each meal ground into the mortars.

Metates are large grinding slicks used for grinding seeds into fine flour. A rounded stone, or mano, was used in the grind-

The Summit Valley glacial erratic (boulder) in the foreground has a number of mortars on it and one metate. The peak in the background is Castle Pk.



The metate and the mano (the rock on top) were the kitchen appliances of the pre-Columbian age on Donner Summit.

The area under the mano is smooth as glass.

Below, less obvious metate



ing. These are generally very hard to see. In some rocks we can see the large smooth depressions but in others the metate area is not obvious and must be found by touch. Granite is very rough but after being used for hundreds of years or longer, the metate areas become smooth as glass.

There are dozens of mortar and metate sites around Summit Valley on Donner Summit. Most are on the outskirts although there are a few in the center. At the Cedars on Donner Summit there are also many mortars but they are on private property. There are other sites scattered around as well at what would have been good camping spots for both pre and post Columbian Native Americans.

While the women worked at the mortars the men were nearby knapping basalt, fashioning the rock pieces into projectile

points for spears. They too passed on cultural knowledge to the boys, summer after summer, generation after generation, until the basalt discards littered the ground in the thousands and thousands.

It used to be possible to find arrow heads and projectile points around Donner Summit but those had been fairly well harvested by the early 20th Century. That said, they do still turn up.

## What Was on the Menu

For the Martis, and the Kings Beach Culture which came later, the Sierra was a cornucopia – like today’s supermarkets. There were all kinds of game from small to large. Birds and fish were caught with nets. Larger animals were hunted with spears thrown with atlatls (throwing sticks). The Martis did not know the bow and arrow. Hunting was the man’s game.

Acorns were a staple food of the Martis but since there are not acorns at the higher elevations, they had to be transported. Acorns have tannins and some toxicity that need removing and that was done by soaking them or washing the meal with water.

The Martis also harvested pine nuts which came from pine cones as well as many other nuts and seeds. Nuts and seeds were ground into flour and then made into a gruel. Acorn meal was roasted or baked into tortilla type breads or made into mush using boiling stones.

“Going back to the days before the Pale-face invaded their land, one can easily recall groups of these aborigines, seated the picturesque lake and river –spots they always chose for their homes or summer resorts–sort ing out the beautiful stones they had procured for arrow-heads, and chipping away slowly as they chatted and laughed, while the river sung, or the cataract brawled, or the piny woods soughed, as musically and kindly to them as to us.”

Indians soda springs  
from Overland Monthly 12/73 Chips from an Indian Workshop B. P. Avery



Near the women working at the mortars the men worked at knapping basalt into projectile points. Any projectile points disappeared long ago from Summit Valley but there are fields of basalt flakes - the leftovers.



## Sierra Cornucopia

### Good Eating:

antelope	rabbits	squirrels
deer	fox	mountain sheep
mountain lion	trout	suckers
wolves	bison	elk
coyotes	bobcat	rodents
small game		
grasses	ferns	grass seeds
pollen	plant bulbs (e.g. Camus Lily)	
tarweed seeds		mule ear seeds (Wyethia)
Brodiaea bulbs		squaw root (epos)
Manzanita berries		goose berries
wild onion	green shoots	miner's lettuce
crass	juniper berries	termites
blackberries	grasshoppers	larvae
caterpillars		

## Cupules

The Native Americans of Donner Summit also ground smaller depressions into granite, called cupules which are about an inch deep and an inch and a half in diameter (below). No one knows why they were made or their significance but like the petroglyphs, they must have been important because grinding holes into granite is exceedingly difficult.

In the Southwest of the United States cupules were used in games or to predict the future, depending in which cupule was filled by a tossed pebble.

All kinds of game were consumed by the Martis from small to large.

Besides seeds and game they ate tubers, bulbs, fruits, berries, grubs, larvae, caterpillars, grasshoppers, and other insects. Interestingly, sugar pine sap was harvested for eating and seasoning. All of those foods could have ended up in the mortars for pounding in preparation to eating.

Nuts and seeds were ground into flour and then made into a gruel. Acorn meal was also roasted, baked into tortilla type breads, or made into mush using boiling stones which were heated and then placed in baskets holding food or water.



Cupules in Summit Valley  
Each is only an inch and a half wide.



Typical mortar in a glacial erratic on Donner Summit.  
They are several inches across and several inches deep.

## Houses

Martis houses were semi subterranean shallow pits 7-15 feet in diameter with conical covers. The larger houses may have had supporting poles. They were covered with brush, hides, or bark.

## Baskets

They carried things in watertight baskets which were also used for cooking. Heated rocks, called boiling stones, were placed in the baskets to cook food.



Replica of a Martis house on the trail to Lakes Flora and Azalea on Donner Summit



## Bibliography

Martis Indians: Ancient Tribe of the Sierra Nevada

Willis Gortner, 1986 Portola Press 145 pages

Copies in Truckee and at the Foley Library in Nevada City

You can also go to [worldcat.org](http://worldcat.org) to see which libraries near you have copies.

Ancient Rock Carvings of the Central Sierra: The North Fork

Indian Petroglyphs

Willis Gortner Portola Press 1984 183 pages (half drawings)

"Archeological and Historical Investigations for the Serene Lakes Study Area" 2008

"The Martis Complex Revisited" North American Archeologist Vol 12 361-376 1991

"Bear Paw Petroglyphs and the Prehistoric Martis Complex"

North American Archeologist Vol 15 69-76 1994

"Style 7 Rock art and the Martis Complex, Northern Sierra Nevada, California"

Prehistoric Rock Art in the Northern Sierra Nevada



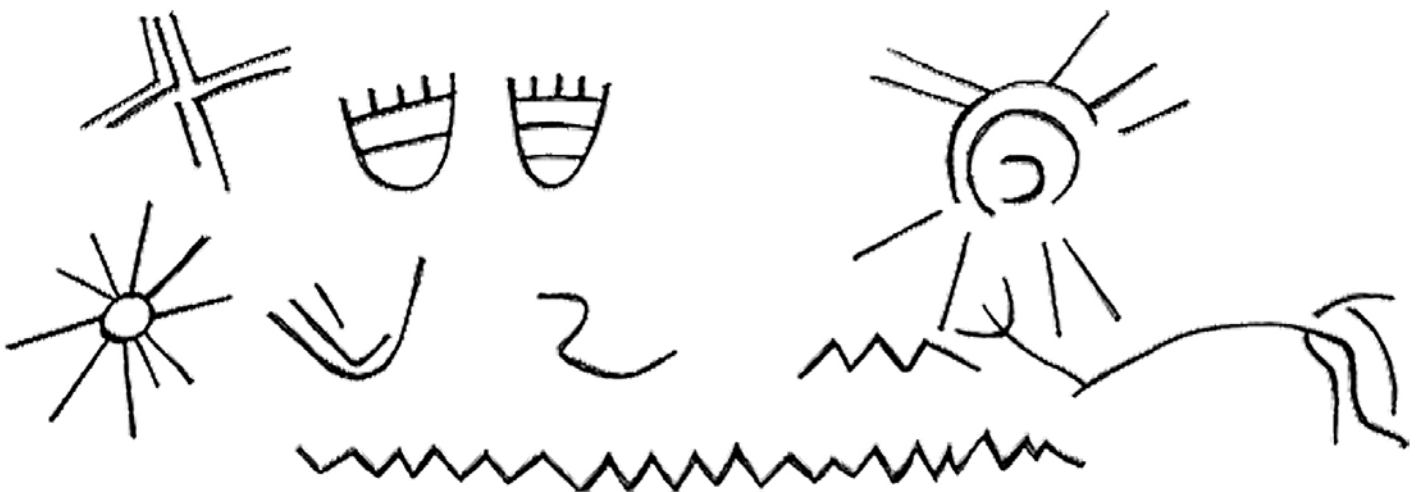
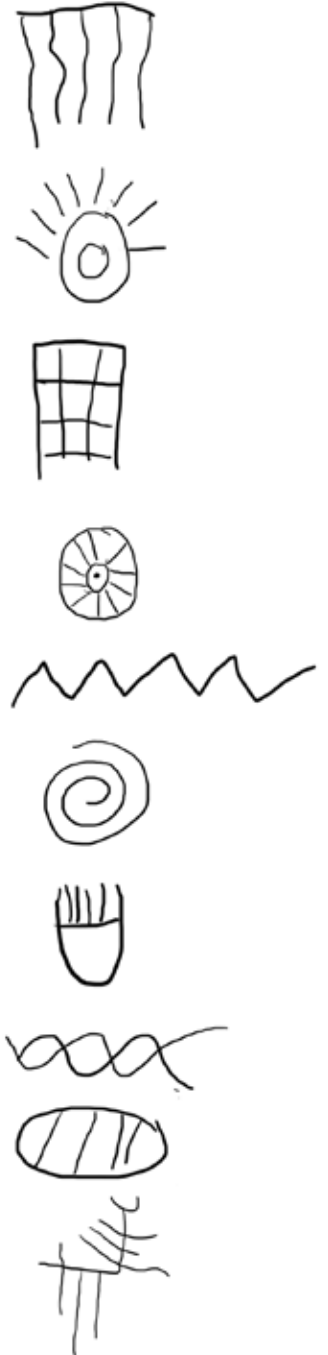
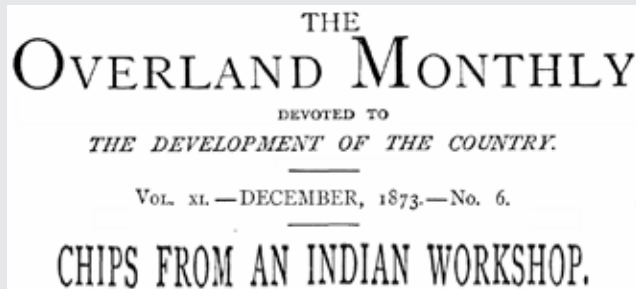


A 19th Century view

from Overland Monthly December, 1873 **"Chips from an Indian Workshop"**  
B. P. Avery

At Summit Soda Springs the deer came to drink at the salt-licks, the piping quail could be heard continually as well as the scolding cry of the jays. At the rear of the hotel (which was built by Mark Hopkins so his wife's society friends from San Francisco could visit and which burned in 1898) "the river tumbles in slight falls and cascades over slanting or perpendicular walls of richly colored granite, shaded by beautiful groves of cedar" the "Indians used to sit, chipping away with stone upon stone to make arrow-heads. This was their rude, but romantic workshop" and they left a lot of evidence of their work. Chips were everywhere apparently in 1873. One had to just rake one's hand through gravel "to find many a curious specimen." This got the hotel guests out looking and "kept them out of doors with Nature; it gave them a pretext for remaining the air by a lovely scene; it aroused that subtle (sic) sympathy which is excited in all but the dullest minds ..."

Native Americans made all kinds of arrowheads at Soda Springs with obsidian being the most used. Most of the chips we find today in Summit Valley are basalt which is a local rock. Obsidian chips can be found but not often. Their presence indicates trading by the early Sierra peoples. The nearest obsidian is in Lake County to the west or near Yosemite, to the south. Mr. Avery found a "great number" of arrowheads that ranged from being only  $\frac{3}{4}$  or a  $\frac{1}{2}$  inch long to an "inch and a half to two, three, or four inches in length." The Native Americans made arrowheads out of all kinds of rock. To Mr. Avery that indicated "a rudimentary taste for the beautiful" since rocks, other than obsidian, were uncertain. They were full of flaws and could break during manufacture. Obsidian was "much better adapted..." and "equally abundant." The use of rocks other than obsidian was guided by "pretty mixture of colors, and the tints and markings..." It was interesting to note "an evidence of taste in these savages of the Sierra." Avery also wondered about any "peculiar sanctity and potency" the Indians may have seen in the rocks they used.



# Cultural Disruption

Throughout human history technological improvements have created huge disruptions to society changing the lives of people, their religions, their heroes, and the stories they told. The agricultural revolution upended hunting and gathering societies. People settled down and began to live in small settlements. Writing and money developed. Customs changed. The stories of the people changed. Religion changed.

The industrial revolution and the steam engine brought factories and moved people away from cottage crafts based in homes. Workers became regimented. New social structures arose as people moved to the cities and away from families and their prior support. Politics changed as did the role of government. Unions and public schooling arose.

Today we are in the midst of a great disruption, again due to a huge technological change. The internet and social media have changed every day lives. For many working from home is a possibility. People have more access to more goods and services and those get delivered to our homes so that stores are less necessary and malls are being re-purposed. We can carry whole libraries in our pockets. Web master and web page designers are just two of many new job categories. There are fewer sales-people in stores and more workers in cavernous warehouses.

That's all by way of introducing the disruption the bow and arrow must have caused to the Martis society. We can imagine a similar disruption for the Martis on Donner Summit as the bows and arrows replaced the spear and the atlatl (throwing stick). We don't know for sure that the coming of bow and arrow, about 500 C.E., caused huge

change but about the same time the Martis disappeared from Donner Summit. Petroglyphs were no longer made. A group with spear points like the Martis appeared in the Yosemite area. We can make a good guess though.

The bow and arrow must have caused huge changes. The new weapon had more power, greater accuracy, and greater range. It must have changed hunting methods and the kinds of food that could be acquired. It may have changed culture. Maybe new prayers were needed. New skills were clearly needed. Maybe values changed. The Martis had worked almost exclusively with basalt to craft tools and projectile points and they were much cruder than what came later. Basalt cannot be crafted into the finer and lighter points needed for arrows so with the change to bows and arrows, chert and obsidian were valued. Those are not available on the Sierra Crest though. The nearest are in the Yosemite area.

We can imagine the heroes of society, pre-bow and arrow, were the ones who were most accurate with the spear, who crafted the best spear points, who put together the best team for hunting in groups and who made the best plans for hunts. Hunters with spears have to get close to the game and the groups of hunters made the kills and shared the food. Religious exercise must have fit into that and so, the meaning of the petroglyphs. The stories told of the society's heroes would have been different from what came later.

The bow and arrow required different skills and different stories and heroes. Basalt projectile points could not be made fine enough for arrows but obsidian and chert can be. Post the adoption of the bow and arrow, one set of societal heroes was the crafters of fine obsidian arrows points. There was no obsidian on Donner Summit and so it had to be obtained either by travelers from the Martis or by trading. Here are more new skills. Bow and arrow hunting can be done by one man using a blind. So the heroes changed from groups to lone hunters. The lone hunters had the food and apportioned out the excess to others in the tribe. The stories were no longer about group hunts but individual successes. There were no more petroglyphs. They were no longer needed.





# From the DSHS Archives



Soda Springs, 1938





Soda Springs, 1930. The hotel has "all new equipment"

Old Highway 40, before paving and the Yuba River at Rainbow. We can suppose the early 1920's.





# Book Review

Cover and header pictures in images in dshs website

## **Drive** **Henry Ford, George Selden and the race** **to invent the auto age**

Lawrence Goldstone

2016 372 pages

The subtitle of *Drive* gives the reader the impression that the book will be about Henry Ford and whoever George Selden is. It's not. It's about the history of the development of the automobile and Mr. Ford and Mr. Selden play only supporting roles. That should not disappoint you if you are interested in the beginnings of the auto industry in America.

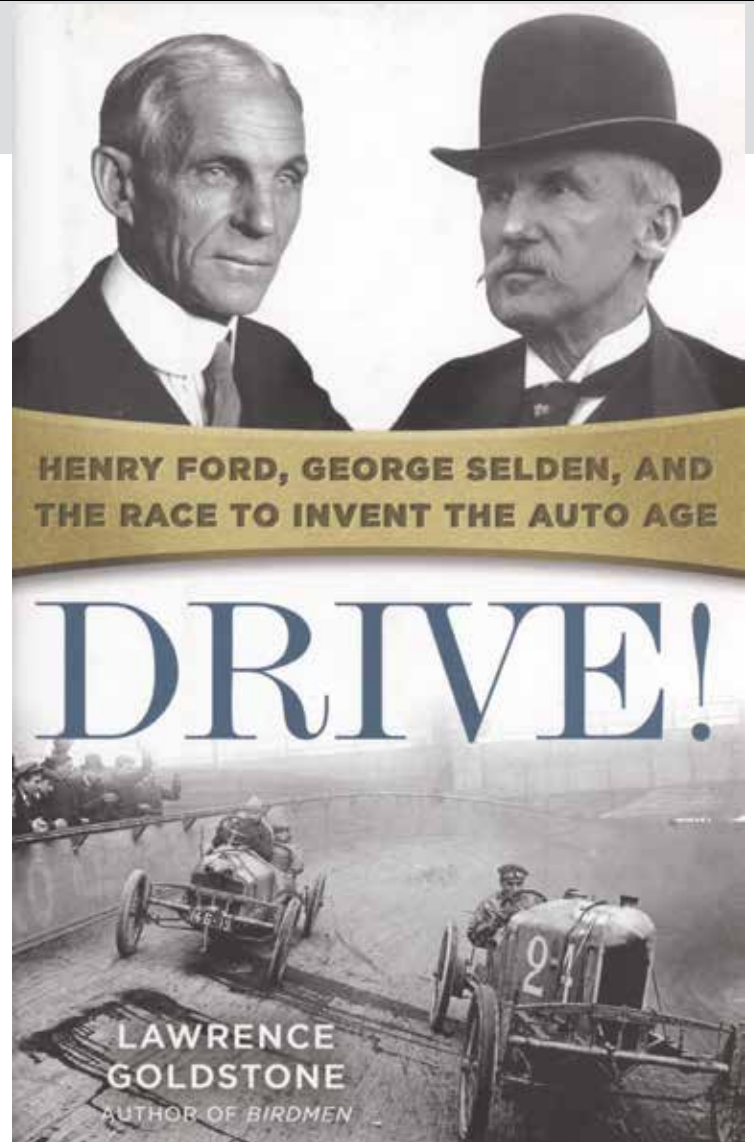
Readers may wonder how books get chosen for review in the [Heirloom](#). To begin with, more than 120 books ago, books were chosen because they were clearly or at least tangentially related to Donner Summit. Times have changed, though, because we've been running out of clearly or tangentially related books. Now we might be reading something and find a footnote that contains a reference that sounds promising. It can then be a treasure hunt and that's how we found *Drive*. It was in a footnote that mentioned a 1903 automobile trip across the country. It looked like the trip went over Donner Summit since the driver followed the transcontinental railroad route. The only thing to do was order the book and see if the 1903 trip went over Donner Summit and then, whether there might be a story for the [Heirloom](#). The 1903 did follow the railroad mostly, except for the part going over the Sierra. There the travelers had the bad taste to take the Placerville route. By then we had *Drive* which looked like it might be interesting to [Heirloom](#) subscribers interested in the early automobile industry.

First, whoever heard of George Selden? It turns out he owned the patent for the idea of the automobile even though he never actually manufactured one. Henry Ford was making automobiles using the idea of a powered vehicle, meaning he owed Mr. Selden a lot of money if Selden sued Ford and could prove he had a "pioneer patent." To get to the resolution of that problem the author dove into the background and beginnings of the automobile industry and detail about the lawsuit. Then he followed the years long case to its conclusion. We at the [Heirloom](#) certainly would not want to spoil any suspense readers may have so we'll refrain from revealing the outcome.

The book follows the development of the internal combustion engine starting with steam, early inventors and their backgrounds, and then moves on to the many threads in the early development of the automobile. There's a lot about the various manufactur-

Young man, that's the thing. You have it. Your car carries its own power plant – it's self contained – no fire, no boiler You have the thing. Keep at it."

Thomas Edison to Henry Ford



ers, racing and endurance runs, publicity, design, racing, inventors, backgrounds, engines, components, and interchangeable parts.

It all interrupts the Ford narrative but because there are so many threads to pull together the book can't just be about Ford. He was part of a movement and the book puts that in perspective. So the title is a bit of a misnomer but the book isn't weaker for that. Sometimes all of the information gets tedious, though, with descriptions about who, how much, trip lengths, auto entrants, and the results.

Some threads are bigger than others: how electric cabs operated in New York, transit companies and lack of standardization i.e. interchangeable parts. Some threads are questionable. For example the Paris Madrid race, nicknamed the "race to death" which was a race among European autos with no Americans participating yet a whole chapter is devoted to it and another international race with no American cars. The races were part of the development of the automobile and are interesting so they were included in the text. We also get many interesting facts such as the first Ford Motor Co. was not started by Henry Ford but others instead, who hired Henry Ford. Cadillac was started by someone who left Ford Motor.

There are some good little stories. "Ford once more took the tiller of his Arrow – which he had sworn he would never again do – and drove across frozen Lake St. Clair. He was so nervous about the Arrow becoming stuck with the throttle open that he recruited Spider Huff, who like [Barney] Oldfield was afraid of nothing, to ride on the running board, prepared to choke off the fuel supply if the powerful engine could not be brought under control by the drive.

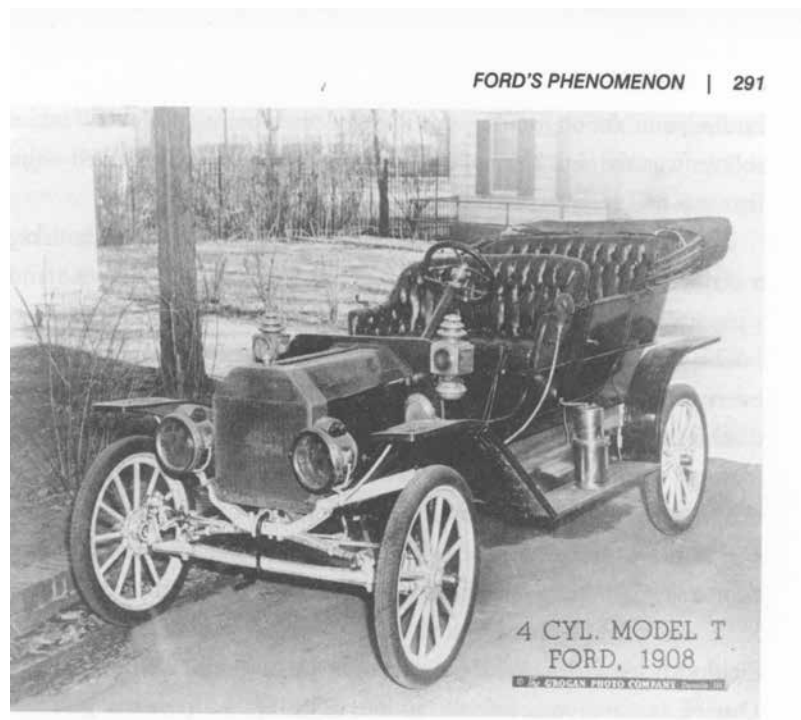
"It was a terrifying ride. The ice, which seem smooth as polished marble when viewed from the bank, was actually fissured and uneven, not the ideal surface on which to drive a glorified drag racer with no brakes. 'I shall never forget that race. At every fissure the car leaped into the air. I never knew how it was coming down. When I wasn't in the air, I was skidding, but somehow I stayed top side up and on the course.'"

Ford and Huff set a land speed record of 91.37 mph in that little escapade. In celebration at the conclusion of the record setting Ford and Huff built a fire and roasted a muskrat. Imagine traveling over the ice at 91 miles an hour with someone hanging on to the running board ready to shut off the engine.

Imagine the person hanging on to the running board and keeping an eye on the driver waiting for the signal to shut off the engine. It would seem that the ignition key was a good invention.

There are some good descriptions too. Hiram Percy Maxim, a Pope Motors engineer "provided perhaps the best description of what it meant to ride in an early version of 'this throbbing, noisy, complicated, greasy accumulation of mechanical odds and ends.'" "It was a real horseless carriage, even to the the whip socket on the dash. It shook and trembled and rattled and clattered, spat oil, fire, smoke, and smell, and to a person who disliked machinery naturally, and who had been brought up to the shiny elegance and perfection of fine horse carriages, it was revolting." Maxim was later the author of *Horseless Carriage Days*.

There are interesting asides too. "Many times we had unpleasant experiences.' In one Illinois town, if a horse refused to pass an automobile, the driver was required to 'take the machine apart as rapidly as possible and conceal the parts in the grass.'"



Ford Model T, 1908



# Making History Colorful



Sugar Bowl after WWII. In the old days, before the Magic Carpet, people disembarked from the train in Norden and were picked up by motor driven sleighs for the drive to the Sugar Bowl Lodge, which is still in use today.

At first, when Sugar Bowl opened the sleighs were pulled by horses but one evening the driver stopped for a beer in the lodge. The horses got loose and wandered on to the train tracks, presumably on their way back to the stables at Soda Springs. The horses were replaced by the tractors.



Today, due to advances in computer graphics technology, there may be a solution to the color limitations of our historical black & white images. Computers are remarkably adept at manipulating photographic images. Algorithms developed for Artificial Intelligence (AI) and machine learning have been adapted to image technology to give almost magical results such as the colorization of black & white images. Algorithms are “trained” by looking at millions of color and black & white versions of photos to “learn” how to add back colors to a black & white image. The algorithms learn how to find a sky and make it blue, find a face and make it flesh colored, find a tree and make the leaves green. They develop highly sophisticated models that can do amazing transformations. Amazingly this technology is now available on desktop computers.

George Lamson

# Odds & Ends on Donner Summit



Glass insulators found next to the railroad below Cascade Lakes. The telephone poles have broken and lost their cross pieces. On the ground, hidden in the very dense brush there are these glass insulators. Perhaps they date from the transcontinental telegraph. The telegraph was first put in place on the Pony Express route that went over the Sierra to Placerville. All the other firsts (railroad, highway, air route) went over Donner Summit and the telegraph came along too after the railroad was finished.

This is part of a series of miscellaneous history, "Odds & Ends" of Donner Summit. There are a lot of big stories on Donner Summit making it the most important historical square mile in California. All of those episodes\* left behind obvious traces. As one explores Donner Summit, though, one comes across a lot of other things related to the rich history. All of those things have stories too and we've been collecting them. Now they're making appearances in the [Heirloom](#).

If you find any "Odds & Ends" you'd like to share pass them on to the editor - see page 2

\*Native Americans; first wagon trains to California; the first transcontinental railroad, highway, air route, and telephone line, etc.

## Old Time Sunday Drive

**Next Time  
Take Scenic  
Old Hwy 40  
instead of I-80**

Historic Towns  
Interesting Scenery  
Fascinating History  
Picnic Spots  
A Slower Pace



Take a look at our guide to Old Highway 40: turn by turn instructions from Rocklin to Truckee, broken into four legs and including pictures and history. Available on line on the brochure page of [donnersummithistoricalsociety.org](http://donnersummithistoricalsociety.org), at the DSHS (at the blinking light in "downtown" Soda Springs, or the visitors' centers in Truckee and Auburn.



And while you are at it, check out the 20 Mile Museum - interpretive signs from Nyack to below Donner Summit on Old 40. Information at [www.donnersummithistoricalsociety.org](http://www.donnersummithistoricalsociety.org)



# Donner Summit Historical Society

[www.donnersummithistoricalsociety.org](http://www.donnersummithistoricalsociety.org)

## Membership

I/we would like to join the Donner Summit Historical Society and share in the Summit's rich history

- new membership
- Renewing membership
- Individual Membership \$40
- Family Membership \$60
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- Sponsor \$250
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- Patron \$500
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The Donner Summit Historical Society is a 501(c)(3) non-profit

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**50 interpretive signs along Old 40**  
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