

# The Donner Summit

# Heirloom

History and stories of the Donner Summit Historical Society

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April 1, 2015 Supplement

Returning Summit Valley to Authentic Pristine Condition

## Rocks Deserve Protection Too



### Summit Valley is gorgeous and pristine, almost.

Each April 1st on Donner Summit we begin to get some feelings of Spring. There is still snow, almost always anyway, but there is more blue sky and warmer weather. Seasons are changing. Days are getting longer. With the change there is the feeling of renewal.

Spring housecleaning is one manifestation and another is thinking about community improvement. The DSHS is not immune. Readers will remember that last year the DSHS renewed the old ads along the Lincoln Highway in Summit Canyon. The improved version is pictured here.

This year the Community Renewal Committee (CRC) in charge of choosing suitable projects turned to Summit Valley. People have been affecting that environment apparently ever

since they first arrived. Someone built a road in it and others built a bridge. Still others built a dam. There are cabin remains, fences, adjusted topography (bulldozers), etc.

Someone also scarred many of the ubiquitous glacial erratics, the large granite boulders deposited by glaciers. A good number of the erratics have depressions worked into them. Each is four or so inches wide and a couple of inches deep. These erratics are historical. They were all at one time part of the Great Sierra Batholith that sits under the entire Sierra. It is the rising of the batholith that caused the Sierra. So they are important but also very old. The granite is hundreds of millions of years old. Talk about historic!

We could go a long way towards returning the Summit Valley to its pristine condition by removing those depressions and returning the boulders to their original condition – before man arrived. Then people walking around the valley would not be

put off by the scarred but otherwise beautiful granite boulders. Benjamin Avery in "Summering I the Sierra" (1884) thought the view in the meadow quite romantic, "A little apart from the noisy station, the woods are beautiful, as we have described them, and the boulder-strewn [sic] earth reminds one of the pasture dotted with sheep." Mr. Avery would not doubt sign on to our initiative.



2014 CRC project, the rehabilitation of ads painted on the rocks along route of the Lincoln Highway in Summit Canyon

The project decided upon, the question was how to optimally renew the erratics so scarred. Research began. Someone must have a solution and meadow renewal is not a new topic. Someone must have solved the problem already.

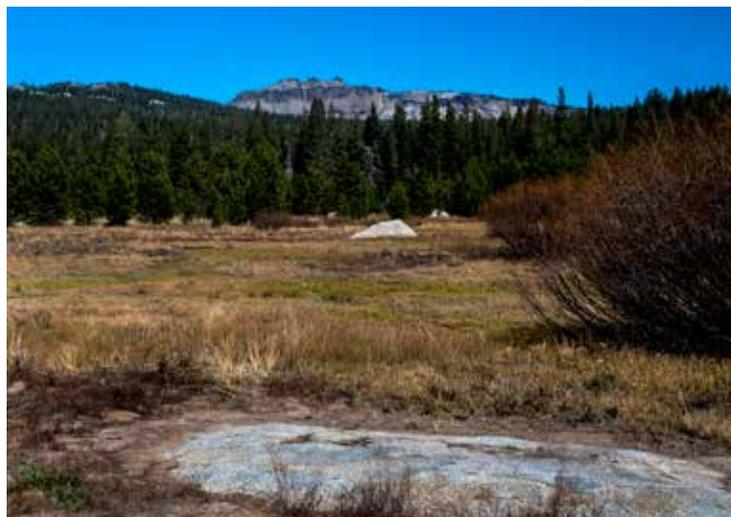
When there are dents in automobiles a dent puller is used or the dent is hammered from the inside. It works with automobiles. The boulders are typically too thick for the hammering and there are no insides to the typical boulder. The depressions are also too hard to drill and the granite too thick to use the dent puller.

Another idea was to re-inflate the boulders but they, again typically, lack a way of introducing air pressure sufficient to pressure the inside of the depression and pop out the depressions.

The CRC was stumped. There were many conversations while brainstorming. Then, innocently or ingenuously, someone who'd stopped by for just a minute clarified the issue, so you want to fill the holes (in the enthusiasm the exact wording was not recorded, hence no quotation marks).

That was exactly "it." We needed to fill the depressions.

As everyone knows granite,



Example of defaced erratic with a great view of Castle Pk. This boulder has not just one, but five depressions ground in as well as a large area where the original surface has been smoothed. A lot of work went into this vandalism.

which are what the erratics are, began life as molten magma. The obvious solution was to melt granite, carefully chosen rock by rock to match depressions needing filling, pour it into the depressions, sculpt a little for authenticity, and we'd have boulders good as new, untouched by human hands. Nature restored!

There seems to be some confusion. An Internet search turned up the

melting point of granite as anywhere from 1400 ° F degrees to 3100 ° F degrees. Second, magma forms under pressure and the amount of pressure is a big factor in the degrees needed. Third, even if we could heat the granite in a suitable kiln, transporting it in its melted state would be a problem. Another solution was to load a generator and a kiln onto a truck and drive into the valley. The Audubon had some objections to the noise. They went on about breeding areas, sensitive wetlands, and probably a lot more until they got to CEQA, EIR, and lawsuits. The mobile granite restoration project through magma re-introduction was dropped. We didn't even have to develop an acronym.

Another practical problem surfaced when it was discovered, after consulting geologists, that after melting granite, it would no longer be granite. IT would be magma, something different entirely. The various minerals would sink if the pressure was not exact and the result might be something more like obsidian and that would not go well – having slick black circles on the erratics. Of course if the depressions were in pleasing patterns, then filling depressions with black obsidian could

produce pleasing designs. Something to think about.

There are always people wanting to put a damper on good

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Above, example of a granitic erratic vandalized with the addition of a ground depression into the surface.

things, on improvements. It's hard to think how the human race could have advanced as far as it has. There must have been someone against fire, someone else against clothes, and more even against the wheel. History is replete with "naysayers."

Back to the drawing boards.

Then, some analysis. How did the vandals (what else could they be?) form the granitic depressions? They were ground into the pristine granitic surfaces. One can imagine Mother Earth screeching in pain with the grinding.

If the depressions were ground in then maybe replacing the "grounds" might be the solution and keep the Audubon and other "environmentalists" and preservers of the status quo at bay.

If the depressions were ground in then the depressions could be filled with "grounds." The grounds would be loose so a binding agent would be required and there the local Ace Hardware came into play. Although they would not donate materials to the worthwhile project they would sell us all the epoxy we wanted. We were moving along.

A quarry was set up. Granite pieces were chosen to match individual erratic depressions and then sledge hammers were used to reduce the granite pieces to "grounds" in a process called granitic reduction.

The grounds were mixed with epoxy and then scooped (a technical term) into the requisite depressions. A final bit of sculpting, practice required for optimal results, and depressions was undetectable. It takes about a half hour for each depression so it's going to take some time to fill all the valley's depressions. Fortunately the Mobile Historical Research Team of the DSHS has, using a PGE survey as well as their own search, a complete listing of all granitic depressions in Summit Valley.

Use the square to the right to join the effort to save the rocks.



Above: another example but then below, an example of the restoration process, after much practice, eliminating the grinding hole and returning to the boulder its original pristine granitic surface. There is no trickery here; this is the same rock. Modern technology saved the ancient rock.

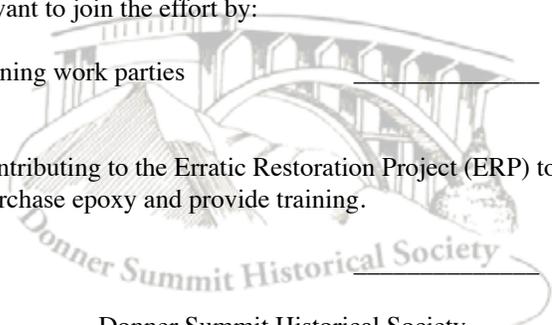


Yes, I think rocks deserve protection too. They are part of the natural environment.

I want to join the effort by:

joining work parties

contributing to the Erratic Restoration Project (ERP) to purchase epoxy and provide training.



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**Save a Rock Foundation**