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Burning Down to the Village

It is continually said, in various circles, "do not burn the arch sites" or "we can't burn in a pre-historical site." Even on proposed prescribed burns, "there are arch sites there, we need to avoid burning there."

When out on collaborative field trips, I am constantly explaining how the ancestral people of the land burned around and out from their village sites, camp sites, sacred sites, and of course their gathering areas.

After some one hundred and twenty years of fire suppression, plus another sixty years on top of that, with the Indians being off the land, the ecology of the land has drastically changed. Changed to the degree to where we now have given it a name, Climate Change. Climate change is due to our state and national policies and development attitudes.

According to a 2005 Department of Water Resources report, it indicates, the Sierra Nevada Mountain Range in an average year receives 27% of the State of California's annual precipitation and provides more than 60% of the State's consumptive use of water. A Sierra Nevada Forest study (*Forests and Water in the Sierra Nevada: Sierra Nevada Watershed Ecosystem Enhancement Project, Roger C. Bales, et.al, Nov. 29, 2011*) has expressed that our forests need to be reduced by 40% canopy. Currently we are at 80-90% canopy on the Sierra. Some of our progressive forest districts are attempting to drop that to 60% with a lot of resistance from environmental special interest groups and organizations. On the other hand, prior to 1850, when the Indian was living on the land, the forest was open, 40% or less in canopy.

Opened, because that is where the First People lived, out in the forest, in the foothills, and the valleys. Some 10,000 sites exist on the Sierra National Forest. Maybe not all are recorded yet but there isn't a rural, hidden or pristine spot they didn't live on. The historic artifactual time element of their existence on the land, ranges from 5,000 to 8,000 plus years, in other words, centuries.

They burned in the village, hence the midden, and burned out and around the village, to clear the underbrush away. They burned close by their village sites to enhance the resources they used for cultural purposes. The Mono, Miwok and Yokotch utilized some 200 different resources for their daily use. They had 95 plus food sources available to them. Yes, a few resources they did trade for, which meant they had to travel long distances or possibly to a trade center (i.e., pre-historic shopping mall), located strategically between several tribal nations.

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Because of fire suppression, even on private lands, fire for restoration or cleansing of the land was not applied. Wood cutting and the brush piles that went with it would be burned eventually. Therefore, the land owner on a large private acreage in Mariposa did not burn the three leaf sumac during the time he owned the property from the 1930's forward. As a result of not burning, over the past couple of years the bushes are being attacked by lichen (moss) and a dodder.

We have been burning on the property for the last ten years but only over the past couple of years has the bushes begun to die. During the past fifteen years new shoots have sparsely been replacing the old growth. Therefore, the berry and new shoot production has vastly diminished. This year, one of our tribal basket weavers' gathered 800 shoots from 20 bushes on this project site. She left three times that amount un-harvested and only utilized 100 of the 800 shoots which were of high enough quality to produce a baby basket.

These bushes are on a couple of hundred of acres. On the east side of the road and adjacent to Mariposa Creek, and on the west side of the Creek lies a major village site, some fifty acres big. The largest bedrock has over 120 mortars and the second largest bedrock has 60 to 80 mortars and slicks.

The third outcrop is flat while the first two are five to six feet high and ten to 30 feet long. The third outcrop has ten to fifteen mortar holes. There is one outcrop with cupules and troughs used for medicinal practices. Spread out over the village acreage there are numerous bedrock outcrops with one to five, and or six mortar holes.

The rest of the village is laid out over 10 to 15 acres, consisting of midden, fire cracked rock, lithic of obsidian, quartz, and basalt. Soapstone of various artifactual use and trade beads are also present.

We started burning in the village site two years ago, eradicating the lichen and dodder. The first burn exposed two small outcrops and the midden was thick, therefore after the absence of the Indians the berry bushes took over. It was prime soil for them to grow in. The bushes were large sixty by a hundred foot crops. We broke them up as part of the fire prepping creating six to eight foot pathways, and four to five patches, thirty by thirty or ten by ten in size.

Because the parasite had taken affect we piled dry brush on top as our elders and ancestors used to do. The importance of this is that it created a very hot burn. The initial burn took about a half hour to burn through. The rest burn takes about three hours to complete, which includes continual clipping of the stocks down to the root. Then the mop up, which includes raking of the ash and reaching out beyond the burn to bring in outside soil to mix in with the ash. Making sure all clippings are clipped down to the

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root, then the ash is raked to a central location within the burn. The raked pile is burned down and then lightly spread back out. Water is then applied to the last of the burn and sprinkled around the burned area.

Since this is done in the winter and spring, a rain or snow normally ensues and the mixture becomes a nutrient for the root system. The root system does not burn or die, and after a rain or snow fall the bush and plants are soon in regrowth. New sprouts come up within one to two weeks. Once the crop has been rejuvenated, the root system, still in-place, becomes a sponge soaking up the rain and snow fall and holding it near the surface, which also eliminates erosion.

With this proper cultural burn, there is no ash prevalent. The soil is not gray, nor black but a nice deep brown. Following the succession of each rain fall, new artifacts become very visible, and there is no evidence of a burn on any of them, which leaves the artifacts very fresh looking.

But that is where the freshness stops. On this site the artifacts found include a rhyolite Pinto arrow head, indicating an age of 8,000 to 5,000 years old (BP, *before present*), in immaculate shape. A basalt Martis point, 6,000 to 3,000 years old (BC, *before Christ)*; a slate or shale Martis point, 6000 BC to 3000 BC (*possible source-North Fork*); an obsidian Sierra Contracting Stem type, 3000 BC to 500 BC; a McGillivray Cluster stem point chert, 2500 BC to 500 BC; and a chert Delta Side-Notched point, AD 1500 to 1800.

Other artifacts with corresponding dates include, a chert Burin/retouched flake (*Burin is a noted European flaking technique*), a gray basalt core/hide scraper, a soapstone arrow shaft straightener (*pinkish in color, source - Finegold Creek, Madera County or Mariposa Creek, south Mariposa*), various basalt, quartz and obsidian flakes as well as a possible schist pendent (*some of the first stone tools were of schist*) These are only surface finds, but gives us a continual occupation over the last 8000 years with only one 900 year gap from AD 650 to AD 1500. Further archaeological investigation will give a more complete analysis. This type of data contributes to the possibility of previous climate changes and global warming's that may have kept the indigenous people off the land for a period of time.

This village could very well have housed 300 to 600 indigenous first people for as long a time line as the artifacts indicate. Numerous resources are present in and around the village. It does need to be noted this is only one section of the prehistoric sites that surround this village. Sites extend east of Mariposa Creek, and west of the pond drainage on out to and past Buckeye Road. Another fifty plus acres of sourberry bushes exist in this section. More bushes, other resources and sites exist for miles up the Mariposa Creek drainage.

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Other cultural resources identified but definitely not limited to this observation include, redbud, elderberry, rosebud, wormwood, sedgeroot, deergrass, bracken fern, willows, black oaks, water oaks, cedars, bull pine, medicines, teas, seeds, bulbs, rare flowers (Mariposa pussy paws), buckeye (of course), live oaks, golden oaks, California grape, Miners lettuce, clovers, Yerba Santa, milkweed and coffee berry.

Once the burns are in place, many other plants come up. Miniature ferns, native tobacco, and bulbs. What is of interest, is that tobacco is located up the road about a half mile but was not found anywhere on the property, before the burns. With two of the seven burns conducted over the past two years, tobacco has sprouted up amongst the sourberry new shoots. And in one of the burns, it is the dominant resource.

This past year the North Fork Mono Tribe has been engaged in a National Science Foundation research funded grant with Stanford University and a coalition of other universities, tribes, researchers and the United States Forest Service. This collaborative is known as the Indigenous Fire Ecological Collaborative (IFEC). The IFEC also includes the Martu people of Western Australia and two Australian universities. Collaborating California tribes include the North Fork Mono, Chico Miwok, Karuk, and Yurok tribes.

Under this NSF grant, the researchers and tribal practitioners are preparing and monitoring ten-meter by ten-meter plots according to a measurement protocol known as Relevé monitoring. The results will show the effects of burns on the health and conditions of the resources.

In conclusion, burning down to the village has been very beneficial. One, an archaeological time-line has surfaced; two, a prehistoric village has been exposed in a more definitive manner; three, the affects of the parasite has been effectively eliminated by the burning; four, the affects of smoke from the burns on the water oaks is evidenced by the leaf density and the dying of the mistletoe in the live oaks; five, the wildlife has been enhanced as evidenced by the number of tracks in the burns, the nibbling of the young shoots and a variety of wildlife species continually associating themselves with the site area; and six, the vision of restoring, rejuvenating and regenerating the cultural resources has been established. Fruition of this project will take place in the next three to five years. The quality and quantity of the berries and shoots will be the indicators of a successful restoration.

Yet, reincorporating the ancient burning practice has already successfully divulged the reincarnation of the spirits of the land, the history of our ancestors, and the tribal-traditional ecological knowledge that laid waiting for the descendants to pick up the book and open to pages full of endless data that bridges the centuries of livelihood upon this sacred land.

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