

REPEATING MYSELF

Note on all repeat photographs:

The original 1989 photos were taken with a 35mm lens while the retakes were 28mm. Hence I had to adjust position for the retakes. There is some barrel distortion in both cases. The originals are scans from the negatives adjusted for color.



November 1989

In 1988, a young man speculating in real estate bought our place and cleared the broom off the hilltop near the road for a "house site." The following November he showed it to us. You are looking up a path toward that hilltop on that day. Even though it was a cloudy day with low contrast, it was impossible to photograph the brush. It was dark in there, still so thick with scraggly trees I had to crawl through it, leaving survey tape tied to branches to find my way. I got lost within 20 feet of the County road, finally realizing where I was when I heard a car. It was a disaster. It was for sale. The moment we saw it, we were in love.



June 2010

Here is that same spot in 2010. I've thinned the stand on the left three times, slowly removing about 20 trees to keep them away from the County road (for erosion, biodiversity, and forestry reasons). I added the black oak (*Quercus kelloggii*) on the right and a valley oak (*Q. lobata*) behind it. There are now a few good young trees ready to replace their larger cohorts in the coming years. It is a long and slow process. The meadow on the right is heavy with small native forbs, now being invaded by native grasses.



This is the slope up to the hilltop. The green stuff on the ground are French Broom seedlings. There is no other groundcover here.



June 2010

Here it is today. No broom, native grasses, deer-weed (on the left), lotuses, clovers, sedges, iris, grand mountain dandelions...





This tree...

This tree...

November 1989



Here we are on the hilltop. The green “groundcover” is French broom. Within four months it was far denser and 2-3 feet tall (3-4 feet in six months when I whacked it). Note the higher density around the edges of the burn spot in the foreground, a typical fire response for French broom. Sometimes it is hard to recognize the same spot after 20 years, but this is an easy one. Sort of.



June 2010

I had already removed a few trees in the background, but one couldn't tell that from this photo. Instead of broom, the foreground is primarily Spanish lotus (*L. purshianus*) and needle grass (*Stipae pulchra and lepida*) from planted plugs. The grass was harvested, and the straw with seed still on it spread on top of a patch of small-flowered lotus (*L. micranthus*) in the mid-ground.



May 2013

One of the things that happens when you do repeat photography is that you notice how much things have changed. Noting that my grassland was disappearing before my eyes I chose to take action, taking two or three trees on the right and doing a substantial thinning on the slope to the left (for several reasons we'll get to later). The flags in the foreground are part of an experiment we'll also discuss later. Removal of the small tree that was marked resulted in a predictable irruption of weeds, even after 20 years.



I removed this
branch 15
years later



November 1989

Moving down the ridge, the groundcover is all French broom. By February, with the addition of new seedlings, the broom had made an 18" carpet over the tops of our feet. By May, that carpet was a blanket, three feet tall. This spot was very hard to find again for a repeat photograph, but for the fact that I such strong memories of that little branch. Over 21 years, things had changed a bit.



June 2010

The area looks so open in the prior picture that I had to go looking for the tree. I was honestly unsure it was the same tree, even though it was seemingly in an obvious location. Even the structure of the major branches was quite different. The repeat also had to be taken from a different angle because of the growth of other trees. The canopy closure in these photos suggested that I needed to thin out about four trees here, as I was losing a significant amount of the little open grassland we have. Yet there was a way to be sure.



November 2013

I had done something “clever” when I removed that branch by leaving it there. It had bugged me for a long time as typical of the kind of horrible pruning done by people who clear land (and the guilt that I had not got there yet to fix it, yet). Year after year, I’d see it, while whacking or spraying broom, but I didn’t have a saw at the moment and it wasn’t an urgent matter. It had taken me so long to get a chainsaw up there that when I finally did the job it was a **very** pleasurable moment. The cut was tricky because the “wound-wood” was in there so deep. When finally I got it out, I left it there as a memento, the kind of thing that would mean nothing to anyone else.



November 1989

When we first moved onto the property, there were perhaps 60 active plant species. However, that total understate the problem. If one had counted only those with a substantial presence (as opposed to isolated individuals), the total number falls to about 20, mostly trees, broom, and a few native shrubs. Once the broom was removed, there wasn't much else. This became our sand hill. If you look carefully, there is evidence from the breaks at the top and bottom of the slope on the left that this spot was once a sand quarry.



March 2011

The Sand Hill Road I added was not optional; it was backup drainage for the driveway in case a culvert plugged, and to protect repairs below that would be subject to slope failure without it. I also needed the fill material. Today, although I wouldn't call it picturesque, it is one of the most species-rich and complex parts of the property, supporting many plants that one would prefer not to have elsewhere.



November 1989



When we started clearing, the seller had brush-whacked that bulldozed hilltop and immediately below it. The rest of the place was almost entirely forested and impacted with French broom. There were virtually no groundcovers left except for a little blackberry. The poison oak and honeysuckle had long since taken to the trees. I have no idea where this is for a repeat photo.



November 1989

This was the site of an old cabin drugged out hippies burned down in 1979. The fire started the eucalyptus and acacia. Half a dozen of the nearby eucalyptus were 4 foot diameter monsters (not shown here). The timbers on the left cover an old 30' old dug well that still produces most of the summer. I may put a hand pump on it someday.



July 2014

The channel cut into the left side transits water that comes down from our “Sand Hill Road” thus avoiding an eroding road cut I filled in that once ran up to this house site. Although I have had to dig out the sediment once in 20 years, it has required no other maintenance beyond weeding. The native groundcovers started as stonecrop and have succeeded to *Navarretia* spp, *Calandrinia ciliata*, and *Trichostema lanceolatum*. Now the grasses are coming in. There are many weed threats in a sunny spot like this.



Note the growth
in the broom in
just three months

These two
trees

February 1991

The first order of business was reducing the fuel load before it blew up into a total catastrophe. Just clearing the house site and thinning 2 acres thereabout generated 35 cords of firewood and the equivalent of thirty dump trucks worth of tree tops. **Note that there is no groundcover here other than French broom sprouts.** We gave away the firewood and burned most of the trimmings in some truly spectacular piles (one of which took a week for the coals to burn out). The fire captains of that time were more tolerant of such behavior; thank you Hank Epling, Steve Beechman, and Mike Biddle (all since retired).



June 2010

I had to move for this repeat because of the road. Note the concrete drain; the driveway needed a hard channel because it is just a skin of extra fine chips on base-rock sealed with oil (oil works well here on a hard base, if one maintains it). The County road, although of poor original construction, has been there for 150 years, paved for the last 40 with but $\frac{3}{4}$ " of oil and screens on bare dirt.



The areas outlined in red were burn piles. The one in the foreground was a pile 60' long that a bulldozer had made out of broom eight years prior. The hillside behind is all broom sprouts because it had been cleared the prior summer and the seeds had germinated in the fall. We cleared this draw in the winter. We had some monster fires in here.



June 2010

I moved back and panned to the right for this repeat to show more of the change in vegetation and less driveway. This is a mix of about 15-20 different groundcovers, about 25% of them annual. Some of the best soil on the property is down the middle of this draw.



February 1991

Due to succession and fire suppression, there were quite a few large Douglas firs. We removed them on steep slopes, in oak forest, and on higher ridges. We kept them on the edges of redwood stands. As chance would have it, at least three of these firs had split tops, all over 30 feet long *and* adjacent to power lines (the power company does not trim more than ten feet away from wires). "Forked top" trees eventually split and the tops could then have fallen on the lines (disastrous in summer). This area doesn't look terribly steep, does it? Keep that in mind noting how dense that vegetation is on the right, as you look at the next photo.



February 1991



Yes, this is the same area! The prior photo axis is from the left foreground (arrow). The dense cover you saw was just below the "maintenance road." The slopes to the left average 15-25% (rise over run). About 6' to the right of the road, it drops off at well over 100%. Our house is in the way of repeating this photo. The burn piles in the background were the third or fourth round that winter.



February 1991

It gets just a bit steeper as you move down the slope (this photo was taken from about a 100' to the right of the one prior). That dense vegetation (mostly fir and acacia) went all the way down, all of it over 45°. Some of it is vertical sandstone wall about 18-20' tall. Imagine the kind of fire that would have come up this slope with that much fuel (I don't want to). The 160 foot tall eucalyptus just to the right of the text box is now gone, as you will see in a few more slides. We lived in the trailer.





There are so many sapling trees and shrubs on this ridge that I'll have to thin it to get a better retake. The remaining eucalyptus, are on our neighbor's land, planted to hold up the road. Note the buckeye that moved in (in flower at the bottom). They store water in their tissue, lack fuel value, shade out grasses, and allow broadleaved groundcovers.



This Ceanothus was 8-10' tall and virtually all dead. It took two of us four days just to chop it up with chainsaws. Then I had a bulldozer crunch it in place.

July 1991

This being an environmental book, a few words on clearing in principle are necessary. A lot of people believe forests should remain unbroken. Others argue that wildlife benefits from "edge effects," with chaparral cover near openings containing forbs as a source of food (I belong to the latter camp). There are a couple of related points I want to make about clearing this place, one of which is subtle to some people.

First, some of this forest was composed of exotic trees that had to be removed before they spread any further. I "clear cut" them. You don't get your choice as to where those "clearings" will be.

Second, every system needs its full compliment of plant and insect constituents or it loses those species which historically responded first to events, whether fire, flood, massive pest attack, or catastrophic climate change (super-volcanoes, asteroid collisions...). Periodic clearings maintain the viability of those constituents by reproducing fresh seed.

Third, given this history of this site, the fuel all around it, and the weeds present, both surrounding it and in the seed bank, if anybody wants an original compliment of plant and insect life to continue to express itself, SOMEBODY familiar with it must disturb small areas periodically or those plants and insects will eventually lose the opportunity to express themselves. The area will succeed to the weeds that infested it before. Guaranteed.



Here is that area today (from lower down to avoid the tree tops). The groundcovers on this ridge are all new (even more extensive behind the redwood saplings on the right), primarily native blackberry (*Rubus ursinus*), yerba buena (*Satureja douglasiana*), Torrey's melic grass (*M. torreyana*), *Melica imperfecta*, and poison oak (*Toxicodendron diversiloba*; it's fine here as long as it stays on the ground), with a single tiny patch of skullcap (*Scutellaria tuberosa*) to the left that I am now propagating by tubers at home. The shrubs are occasional ferns, roses, pitcher sage, and hazelnuts, with the toyon and manzanita having large burls, indicating that this was once a site subject to occasional fires. Down the middle are mostly clovers and lotus. Although (now) very clean and seemingly remote, this site requires vigilant weeding because it is so close to our neighbors. If the Ceanothus on the end of this ridge burns, there would be no protection from blowing seed or wandering animals loaded with weedy burs. The only hassle is tree seedlings.



← This Coast Live Oak was 18" in diameter. It has grown ten feet, and gained 8" in diameter. The 8" diameter cut branch has healed.

As you read this story, you will see the twin requirements for (1) an enormous amount of site-specific knowledge and (2) the number of immediate decisions to be made is way too great for someone in a remote office to manage without making a mess of it, even if the weed seed bank is successfully purged. Efficient remote control is an impossibility.

As a direct result of that reality, there is one other ecological reason for a small clear-cut, one that occurs to almost no one: ***The people who care for the land need a safe place to live on it.*** I could go on and on about how banks and building codes must change to reduce wildland impact (I've long dreamed of designing mobile houses for rough terrain), but no matter what, and for the foreseeable future, there will remain a need for residential proximity to respond to numerous and rapidly changing conditions. That detailed knowledge can only be acquired by living on site (at left).

Then there is the not infinitesimal matter of paying for it all, and it is not cheap.

I am the keystone species on this land (one that, without it, the system fails). Sometimes it feels like a burden, others like a privilege. I hope to record, teach, and impart as much as I can of what I have learned, but the fact remains: If I stop doing this work, things will deteriorate very quickly. The Wildergarten is not and should never have been "Natural" (at least the way we define the term).

I know, your brain is probably pounding with what you think are exceptions, but in my, now long-experienced opinion, it is invariably true.



TABLE OF CONTENT

Introductory Path

Introduction	Why Native Plants?	Why “Native” Is Not Enough	Site History	Repeat Photos	Scene & Unseen	Project Overview
				You Are Here	Next	

Forestry

Broadleaf	Understory	Conifer	Drainage	Roads	Aerials
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Sand Hills & Grasslands

Noxious Weeds	Colonization Behavior	Sand Hills	Meeting Meadows	Grassland Restoration
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Weeding Technique	The Weed Bank	Pre-Emergence	Drought Tolerance
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Miscellaneous

Gardens & Soil Rehab	Bees & Pollinators	Tools & Equipment
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Concluding Path

Failure by Succession	Weeds as Commons	Boundary Conditions	Prison Plan-It	“Ownerless” Society
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