

On The Rocks: Gardening on a Rock Outcrop - Part 1

by Roger Raiche, May 2010



The rocky bank as I first saw it before we purchased the property. Here it is covered in dry weedy grasses, thistles, etc. There are two separate terraces above the stone-inlaid concrete walls, with garage, small house (roof) and water tanks behind them.

A habitat that has always fascinated me is the rock outcrop. Rock plants are frequently different than the prevailing plant community, thus represent a sort of island of unusual beings. The conditions of growing on rocks often creates plants of atypical form or expressions, odd appearances and features. And plants growing on rocks tend to display themselves dramatically and with flair.



Part natural, part exposed rock bank along driveway just after moving in. A few pots, ceramic pig, pipes and metal sculptures temporarily set against hillside awaiting decision on future placement. The lower of two concrete retaining walls can be seen at top.

Because of my attraction to rock outcrops, I have often envied yards that had exposed rock. One could construct a rock outcrop, but that is a lot of work. And unless you are very good with rocks, it is often unsatisfactory, especially compared with nature.

So I was rather thrilled when we bought our property in Calistoga 5 years ago and it had considerable rock around the houses. I speculate that originally the site was probably an impressive rock outcrop that mostly got leveled to build the two houses, garage and two driveways. However fragments persisted and some areas were actually created by excavation, which exposed the subsurface rock.



The rock bank after first rains showing new growth. predominantly weeds. Two Yucca and a 'Santa Rita' opuntia (cactus w pinkish pads) and the pre-existing purple fountain grass (*Pennisetum*) are the only plantings in Nov 05. (The little shed is a pump house).

While the horticulturist may crave rocks, rocks don't crave horticulture; the simple truth is that it is really hard to grow plants on rocks. On this bank the top had something like soil in spots, a colluvium of clay and rock rubble, but other sections are mostly rock and rubble. The four native blue oak - *Quercus douglasii* - were obviously going to have priority of resources, especially water once the heat arrives. There were three other native plants growing there; the perennial *Phacelia heterophylla*, the summer dormant bulb, soap plant, *Chlorogalum pomeridianum*, and another bulb (corm) called blue dicks, *Dichelostemma capitatum*.



By the spring of 2006 more planting had taken place, especially at the base of the bank where good soil had been brought in to grow a more traditional mix of horticultural material such as roses, Cape reed, *Chondropetalum tectorum*, shrub milkwort, *Polygala dalmasiana*, 'Purple Haze' honeyplant, woodland *beschorneria*, etc. etc. etc. The idea was to make the approach to the main house more exuberant, but not to hide the rock face. Most of the growth on top of the rock are the pre-existing natives; *phacelia* and soap plant.

The rock outcrop here was always intended to be naturalistic with an overlay of horticultural experimentation. Seen mostly in passing while driving or walking along the driveway, it was not intended to be a precious "rock garden" of choice alpine treasures or minute bun plants. That is another form of horticulture altogether, generally more suited to a place where the exquisite details of those types of plants can be more fully appreciated.



By the spring of 2008 both the bottom "mixed border" planting as well as the rock planting itself had grown in a bit, although the plants on the rocks were quite slow. Thus there is not much that stands out in this picture except the *Yucca* 'Blue Boy' below the wall and the *Yucca aloefolia* 'Marginata' above the wall. However all the native-to-site plants were thriving, and the diversity of plants was much greater than might appear. On the rocks were shrubby *Senecio*, many *Agave* species and cultivars, *Dudleya* and *Echeveria*, *Pachyveria*, *Salvia sonomensis* and *S. brandegei*, *Aloe* species, *Trachycarpus wagnerianus*, *Eriogonum umbellatum*, *Xanthorrhoea preissii*, *Watsonia* X's, *Amaryllis belladonna*, *Amarcrinum*, *Aeonium*, *Puya*, etc. Also another native annual, *Phacelia distans* had moved in on its own.



The summer months were very hard on the rock plantings as they received very little water, some none, and they are subjected to many hours of intense sun and heat almost every day for 6 months. The plantings at the bottom did receive more regular irrigation, thus were able to "cover" for the drier background planting. While many gardeners consider the winter as the "off season", here it is the opposite, with summer being the dormant time of year. In spite of this, some plants did retain good appearance, particularly the *Yucca*, *Opuntia* and the shrub *Senecio* - which are particularly impressive in their drought tolerance (there are two green plume-like small *Senecio* shrubs below the wall, one on the left and one in the middle, both near oak trunks.)



By November most of the plants are in full re-hydration and starting to grow again. This is the same pattern as one would find in nature in this area. However a "trick" I developed while taking care of the CA native collection when I was at the UC Botanical Garden (1978 - 2002) was to extend the season by starting to water in October if the rains didn't appear on their own - this activates the new growth so when the rains do materialize, the plants are set up to utilize the moisture more rapidly. (While the philosophy of "celebrating dormancy" is valid in a dry climate, after 6 months, the celebration gets kind of tiring. Time to celebrate rejuvenation.)



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This is a close up detail of the center of the rock area showing several *Agave*, *Dudleya*, *Pachyveria*, and the trailing *Opuntia compressa*. (*Opuntia compressa*, native to the central and eastern North American continent especially on sand dunes along the coast and Great Lakes, is a lovely cactus of great hardiness. It is best displayed cascading down a slope. However, while its lack of large spines makes it look "friendly" for a cactus, the tiny and numerous glochid spines - barely visible - can be insidious and irritating if handled without good gloves).



By late January the rock plants are in full growth, with an *Aloe arborescens Variegata* in flower. The two green shrub *Senecio*, mentioned above, are especially attractive in the winter light. The low gray ground cover on the top center of the bank is the native sage, *Salvia sonomensis*, native to the volcanic ridges not far from the property. It, and the native bulb called blue dicks, while not obvious in this picture, are already in flower.



View of rocky bank planting in April 2010. Spring is definitely the peak season here, though some of these will look good into the early summer; particularly the mixed shrub plantings at the base which get routine irrigation. The numerous yellow flowered scapes projecting from the upper rocks are the native wallflower, *Erysimum capitatum*, grown from seed obtained in the canyon. Blue dicks, *Dichelostemma capitatum*, are numerous on the upper slopes, but not as visible in this picture - yet are showy in real life.