

A photograph of a lush garden featuring various native plants, including tall grasses and flowering shrubs. In the background, there are several trees with light-colored bark and a stone wall. The scene is set outdoors with a clear sky.

Lawns are out, Natives are in!

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# Why Natives?

- Reasons
  - Sense of place
  - Habitat preservation
  - Lower maintenance (when designed correctly)
  - 60-90% less water use
- **Misconceptions**
  - Dead/dormant half the year
  - Fire-bombs
  - Difficult
  - Too large for most yards

# Basic Ecology

- Plant communities
  - Highly symbiotic
  - Chaparral, CSS, Mixed Evergreen, Grasslands, etc

# Basic Ecology

- Mulch is important factor in defining communities
  - Organic
    - Chaparral, CSS, Oak Woodland, Mixed evergreen forest
  - Inorganic or no mulch
    - Coastal strand, Desert, Riparian, Grassland

# Basic Ecology

- Grouping plants by preferred mulch is usually a very successful strategy in promoting good ecology and thus landscape stability
  - 5 species from one mulch group should provide enough bio-diversity to make the planting stable

# Basic Ecology

- Most are dependent on soil biology
  - Mycorrhizae
    - Endomycorrhizae

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  - Frankia
    - Nitrogen fixation in non-leguminous plants
  - Cryptogamic crust
    - Nitrogen fixation and soil stabilization community-wide

# Basic Ecology

- Bottom Line
  - Design gardens in a way that emulates California's native ecology as closely as we can

# Design

- 75% of the planting should be evergreen
  - One of THE most important principles
  - Avoids dead/dormant appearance
  - Foliar color and texture lend year-round interest

# Design

- The remaining 25% is comprised of specimen plants and perennials
  - Colorful perennials should be located at the edges
  - Mix blooming cycles

# Styles

- Any landscape style is possible with natives
  - Function of knowing what plants are available and how to use them
- Formal
- Contemporary
- Mediterranean
- Southwestern
- even Japanese!

# Styles

- SD County Fair 2013

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# Installing a Native Landscape

- As in most endeavors, preparation is everything
- Emulate nature as much as humanly possible
- You will be:
  - Removing conventional landscape plants & lawn
    - Existing drought tolerant plants or trees might be ok
  - Removing landscape fabric, gravel, old drip systems (or converting to micro-spray, at least for the natives)
  - Installing high efficiency overhead sprinkler heads
    - Hunter MP-Rotators on 12” pop-ups are a good example

# Installing a Native Landscape

- You won't be:
  - Roto-tilling, unless soil is highly compacted
  - Amending or fertilizing the soil
  - Inoculating, unless soil is really bad (mine tailings)
  - Adding water storing polymers
  - Using poor quality mulch
  - Using drip emitters, at least on xeric natives

# Site Preparation

- Clean up and removal of the old landscape
  - Remove undesirable plants and weeds
    - Eliminate roots as much as possible
  - Kill the lawn
    - Cut the sod 2" below the surface
    - Create a compost pile for the old turf
- Remove any other features you're not keeping
  - Walkways, landscape fabric, gravel
  - Gnomes and pink flamingoes
- Rough grade
- Install flatwork, rocks and paths, followed by irrigation

# Irrigation

- Drip emitters negatively impact most drought tolerant NATIVE landscapes
  - Natives are less forgiving of non-ecological approaches
  - Conventional landscape plants, veggies, roses, fruit trees do fine on drip
  - Mediterranean plants usually tolerate drip, but can be shorter lived (e.g. lavender)
  - Water loving wetland natives do fine on drip
  - In-line grid pattern drip systems use as much or more water per s.f. than high efficiency overhead sprinklers (e.g. MP-Rotators)
- Micro-sprays are fine & a great way to convert existing drip systems to overhead application

# Planting

- Recommend smaller plants (1-5 gallon) for faster and better establishment
- Lay out planting beforehand, spacing for final size

# Planting

- “Dig a hole and stick them in!”
  - Do not amend or fertilize in most cases
  - Make the hole ~1/2”-1” shallower than the root ball, and about twice as wide
  - Backfill with soil and tamp with feet
  - You can create a temporary basin to hold the initial watering, especially on slopes
  - Place 6-12” boulders on root ball if available



# Planting

- Then water, water, water
  - 1-5 gallons in clay soil, 5-30 gallons in well draining soil PER 1 gallon plant, that day
  - Best way to remove air pockets and settle the soil
- Now is the time to put down a granular pre-emergent if desired
  - Won't harm growing plants
  - Kills shallow seed bank, which may total 10-100K per ft<sup>3</sup>!

# Mulching

- Apply mulch
  - Shredded redwood bark is best organic mulch, 3-4" deep
    - Emulates the natural duff layer
    - Lasts up to 10 years on the ground
    - Holds its color well
    - Sticks to very steep slopes
  - Use sand, rocks, & pebbles for inorganic mulch
  - Virtually all natives love having 6-12" boulders placed right on their root balls
- Overhead watering for hours will settle mulch



# Watering

- Typical goals for summer watering of established plants:
  - once every 10-14 days during summer for coastal communities
  - Every 7-10 days for inland areas
  - Every 7 days for steep hot slopes
  - Always best to water in early morning, when soils are coolest
- Hand watering or hose-end sprinklers work well too
- Avoid drip emitters in most cases, narrow beds being an exception.
  - Multi-orifice heads are best for this



# Maintenance

- Pruning

- Evergreen plants, if spaced for final size, require virtually no pruning
- Sages and perennials usually require removal of the dead flowers, known as “dead-heading”
- Shaping, removal of dead branches, and thinning to accent scaffolding are other functions

# Maintenance

- Pest control
  - Sucking insect infestation associated with Argentine Ants is the single largest cause of death in Ceanothus,
    - Starting at the roots, ants rear, place, and protect sucking insects, like scale
    - Controlling the ants with bait allows for predators to destroy the sucking insects
    - Scale can be especially difficult to detect
  - Borers are another problem for Pines and Oaks
    - Maintaining a weed free, symbiotic ecology can minimize their impact, allowing for adequate hydration and disease resistance.

# Maintenance

- Pest control

- Gophers and squirrels

- Can destroy an entire landscape
    - Plant cages are not the greatest for plant health
    - Traps are a better solution
    - **And gopher kitties are worth their weight in gold!**



# Maintenance

- Weeds

- Weeds are non-native, highly invasive plants adept at shutting down our delicate native ecology and taking over.
- Some weeds (mustard comes to mind) actively target mycorrhizal fungi and destroy it

# Maintenance

- Argentine ants also love to plant weeds
  - Here they've planted African veldt grass at the base of this rare native copperleaf
  - Great indicator of ant infestation

# Maintenance

- Weeds
  - Weeds and natives are an ecological switch
    - Removing weeds often restores the health of a native ecosystem
  - Pulling often encourages weeds through disturbance
  - Post and pre-emergents are effective controls

# Plant Selection

Large Deciduous Trees

*Acer negundo ssp. californicum*

California box elder



# Plant Selection

Large Deciduous Trees

*Platanus racemosa*

Western sycamore

# Plant Selection

Large Evergreen Trees

*Quercus tomentella*

Island oak



# Plant Selection

## Medium Evergreen Trees

*Prunus illicifolia ssp. lyonii*

Catalina cherry



# Plant Selection

Small deciduous trees

*Forestiere neomexicana*

New Mexico olive

# Plant Selection

Small evergreen trees

*Comarostaphylis diversifolia*

Summer holly



# Plant Selection

Large Shrubs

*Ceanothus cyaneus*

Lakeside Wild Lilac

# Plant Selection

## Large Shrubs

*Dendromecon harfordii*

Island Bush Poppy



# Plant Selection

Medium Shrubs

*Arctostaphylos 'Paradise'*

Paradise Manzanita



# Plant Selection

## Medium Shrubs

*Eriogonum arborescens*

Santa Cruz Island Buckwheat



# Plant Selection

## Groundcovers

*Ceanothus thyrsiflorus repens*

Prostrate blue blossom

# Plant Selection

## Groundcovers

*Arctostaphylos 'Del Mar'*

Prostrate Del Mar manzanita



# Plant Selection

**Perennials**

*Erigeron glaucus*

Seaside Daisy

# Plant Selection



## Perennials

*Penstemon 'Margarita BOP'*

Foothill penstemon



# Plant Selection

**Perennials**

*Epilobium canum*

California fuchsia



The End