



WELCOME!



**UC
MASTER
GARDENERS
NAPA COUNTY**

SUCCESS WITH SUCCULENTS!



What is a succulent? What is a cacti?

Spiral Aloe
genus Aloe

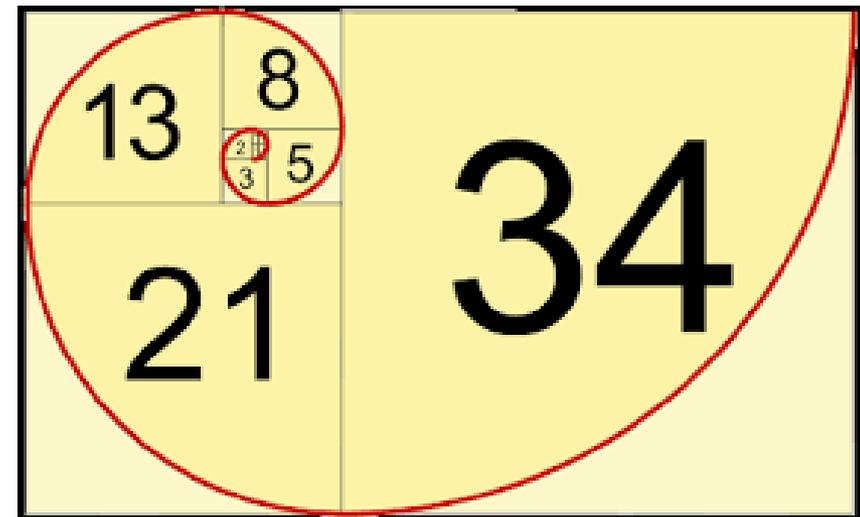


Spiral Cacti
genus Mammillaria

Phyllotaxis is the arrangement of a plant's leaves along the stem.



Spiral Phyllotaxis and the Fibonacci Sequence of Numbers



1, 1, 2, 3, 5, 8, 13, 21, 34, ??

Phyllotactic Spirals







Hen and Chicks



Debra Lee Baldwin



Debra Lee Baldwin

Medusa euphorbias

- Medusa euphorbias



Twelve Genera of Familiar Succulents



Agave

Agave parryi



Agave colorata



Agave neomexicana



Agave victoriae-reginae

Aloe



Aloe striata

Aloe polyphylla



Cotyledons

Cotyledon



Cotyledon



Cotyledon

Dasyliirion

Dasyliirion 2



Dasyliirion longissimum



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Dasyliirion desert spoon

Dudleya

Dudleya farinose



Dudleya brittonii



Echevaria

Echevaria



Gorgeous color!



Echevaria 3

Euphorbia



Graptopetalum

Graptopetalum



Graptopetalum



Graptopetalum

Haworthia



Sedum

Sedum



Sedum 2



Sedums go on and on!



Sedum



Sedum



Sedum texture

Sempervivum

Sempervivum



A myriad of colors and leaves!

Yucca



Spectacular, isn't it!

Yucca





Right Plant Right Place

- Sun/Shade requirements
- Drainage
- Water
- Plant habit
- Traffic
- Structures
- Hardiness zone
- Maintenance requirements



Microclimate Influences

microclimate. The long-term weather conditions in a small area on the Earth. Usually, this term refers to such things as the differences in weather between the tops of hills and neighboring valleys, or between different parts of the same piece of land.

In your garden the following conditions can create a microclimate:

- Exposure to wind
- South and west facing walls
- North wall /East Wall/ Eaves
- Sloping ground/ Cold air pockets
- Shade trees and structures

Containers & Growing Medium





DIY Growing Medium

UC Davis Arboretum recipe

- 1 part ground sphagnum peat
- 1 part uniform coarse sand (no silt)
- 2.5 parts white pumice
- 1 part redwood compost

Very low in organic material.

Commercial Growing Medium





Advantages of Containers



- Drainage: Fast, no standing water
- Soil: Porous, coarse aggregate, low organic content
- Location: Sheltered from frost, harsh sun
- Mobility: Can be relocated with changing conditions
- Style: Size, shape, color, form to suit plants and preferred style



Planning Your Container

- **KNOW YOUR PLANT(S):** Research plants' needs: Water, light, exposure, drainage, fertility, eventual size.
- **GROUP PLANTS** with similar requirements.
- **CHOOSE A CONTAINER** compatible with plants' shallow roots (or modify) and design style desired.
- **ARRANGE PLANTS** for size and color.
- **PLANT GENTLY**, from tallest/largest to smallest/lowest.
- **PLACE** container where plants will receive appropriate light and shelter. Turn if needed to prevent elongating toward light.



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Design

Location

Function

Form

Style

Color

Repetition



Similar design with very different feel.
Location, function, form, style, color, repetition make all the difference.



Form and Style
(and imagination!)





Formal or
whimsical



Repetition



AND THEN GROWTH HAPPENS!

When those lovely succulents outgrow their pots, or have so many offsets they look like the Old Woman in the Shoe, or your carefully planned design just doesn't look the same, it's

Time to find a place in the garden!

KNOW YOUR GARDEN:

Sun/shade direction, time of day,
Frost/wind exposure,
Reflected heat and light,
MICROCLIMATES

KNOW YOUR PLANT(S): Research plant's needs: Water, light, exposure, drainage, fertility, eventual size. Plan ahead! **RIGHT PLANT, RIGHT PLACE:**





Considerations for Planting in the Garden:

Location:

- Higher ground: Mounds or slopes for improved drainage and frost protection.
- Morning light or shelter from hottest sun.
- Bright light shade for Dudleyas and other plants from coastal areas.
- Generally, at least 2 hours of sun or bright light to avoid elongation.
- Fast-draining soil. Plant rosettes at an angle to allow centers to drain.
- Shelter from rain during dormancy (Best if bright, dry, and cool.)

Function:

- Structure/"bones", filling middle ground, ground cover?
- Near parking, path, or play area? No sharp points please!



Pocket Gardens



Parking strips and other narrow spaces



Location/Function/Scale: Near paths? Foot traffic? Small tight area?

Style



What feel do you want in your garden?

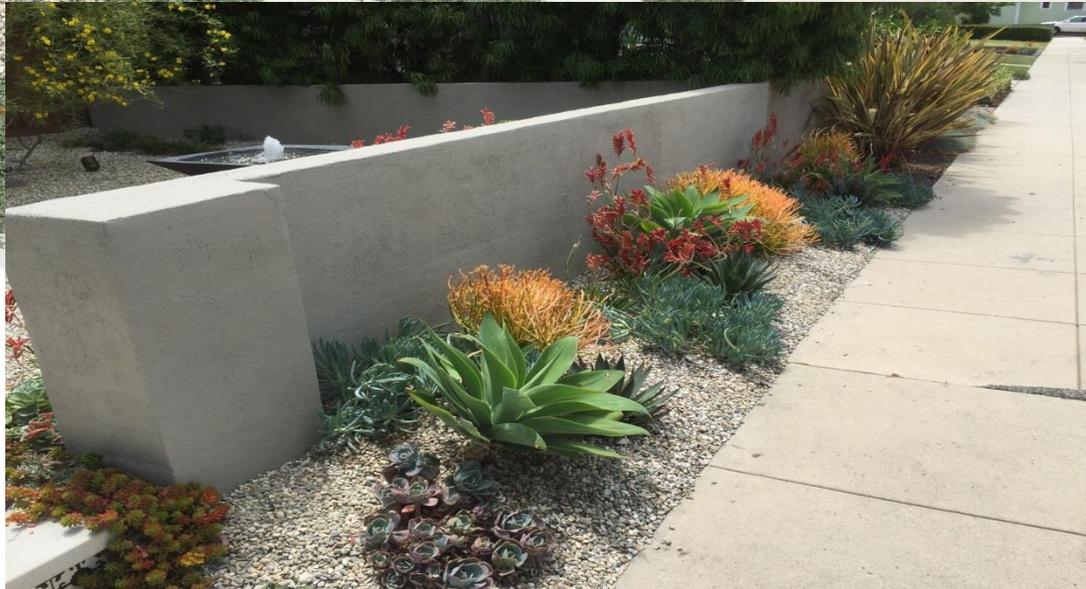








Structure and
Texture



Form and
Repetition

Color





Billows of warm chartreuses and oranges repeat in round forms.



Textural play of greens against a rough stone wall.





Jeanne Meadows Garden
Photo by Debra Lee Baldwin





Planning for the future:

Plan ahead,
or
Plan to redo!





**Dense mix, or
room to grow?**





Tale of a Garden

March 2014



May 2016



June 2018





Plan ahead, or



**Plan to
redo!**



Which can be
great fun.

That is why
we garden,
right?

Propagation

Sterilize a
sharp knife
or pointed
scissors





Propagation of Stems

- Let the cutting dry out in a shady location
- Dip the cut end in a rooting hormone
- Stem cuttings need 1 – 2 days drying time
- Plant the stem cutting in soil
- Place in a warm airy location
- Keep the soil slightly moist
- Mist leaves
- Reduce watering as the plant develops

Propagate from Stem Segment



Propagate from Rosette



Propagation of Leaf Cutting





Propagation of Leaf Cuttings

- Let the cutting dry out in a shady location
- Dip the cut end in a rooting hormone
- Leaf cuttings take 2 – 7 days
- Lay the leaf cutting on top of soil
- Place in a warm airy location, keep soil moist & mist leaves
- Small roots will appear and new succulent growth will appear at base of leaf
- Plant new succulent growth being careful not to disturb roots
- Reduce watering as the plant develops

Kitchen Propagation







Maintenance

How do I Take Care of This Thing?

- The positive is - growing succulents does not require very much maintenance!
- Watering & Fertilizing
- Light
- Grooming
- Re-potting



THANK YOU!



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