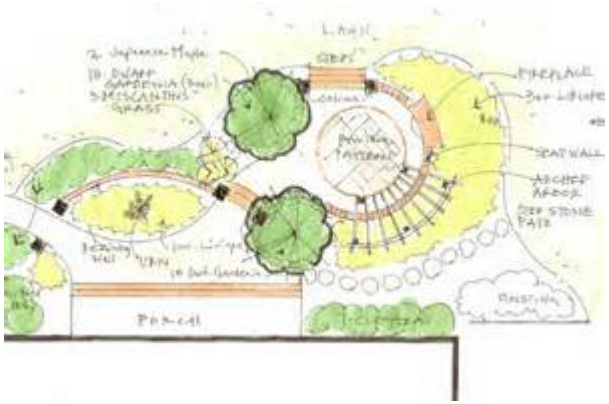


Landscape Design Basics

Alexis Durham

Landscape Design Basics

- Considering the Client
- Considering the Space
- Planning an Outdoor Space
- Elements of Garden Design
- Plant Selection

Considering the Client

- How should the garden function?
- Resources to devote to the garden
- Time to devote to the garden
- Skills to devote to the garden
- Ideally you end up with something that meets what you/the client want and need, that also is a reflection of personality

Considering the Space

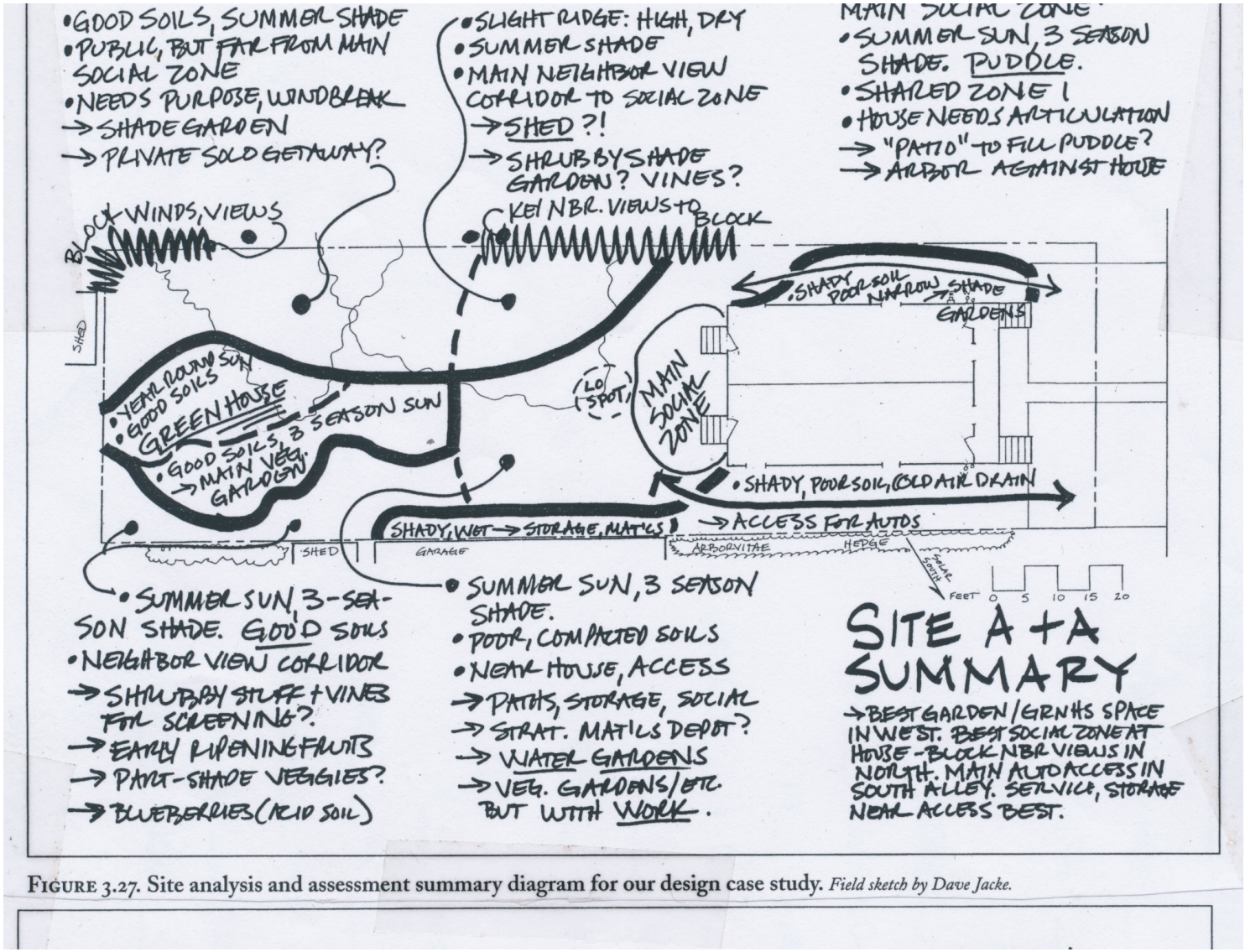


FIGURE 3.27. Site analysis and assessment summary diagram for our design case study. *Field sketch by Dave Jacke.*

Considering the Space

- Site Analysis
- Garden Owner's Checklist
- Establish Ownership of Boundary Walls
- Do not make hasty decisions about removing established plants
- Trees and hedges provide a sense of maturity to a space, so try to work with them

Garden Owner's Checklist

adapted from Rosemary Alexander's The Essential Garden Design Workbook

- Family members (including pets),age and hobbies
- Existing problems (visual and functional)
- Positive elements to be retained or enhanced
- Desired character of site (formal/informal)
- Favorite plants (if any)
- Planting effects
- Favorite materials for hardscaping and paths
- Other elements to be included
- Budget
- Client requirements

The Garden and Its Setting

- In any outward view it is the shape of the skyline that you will appreciate first.
- Every garden appears bigger if the eye is drawn to a viewpoint beyond its boundaries.
- Consider how you can have a positive impact by giving pleasure and beauty to those who walk past your space.
- In most garden spaces, there will be good views to be emphasized and less attractive views that need screening.
  - When using plants for concealing less attractive features, avoid unnatural shapes and colors

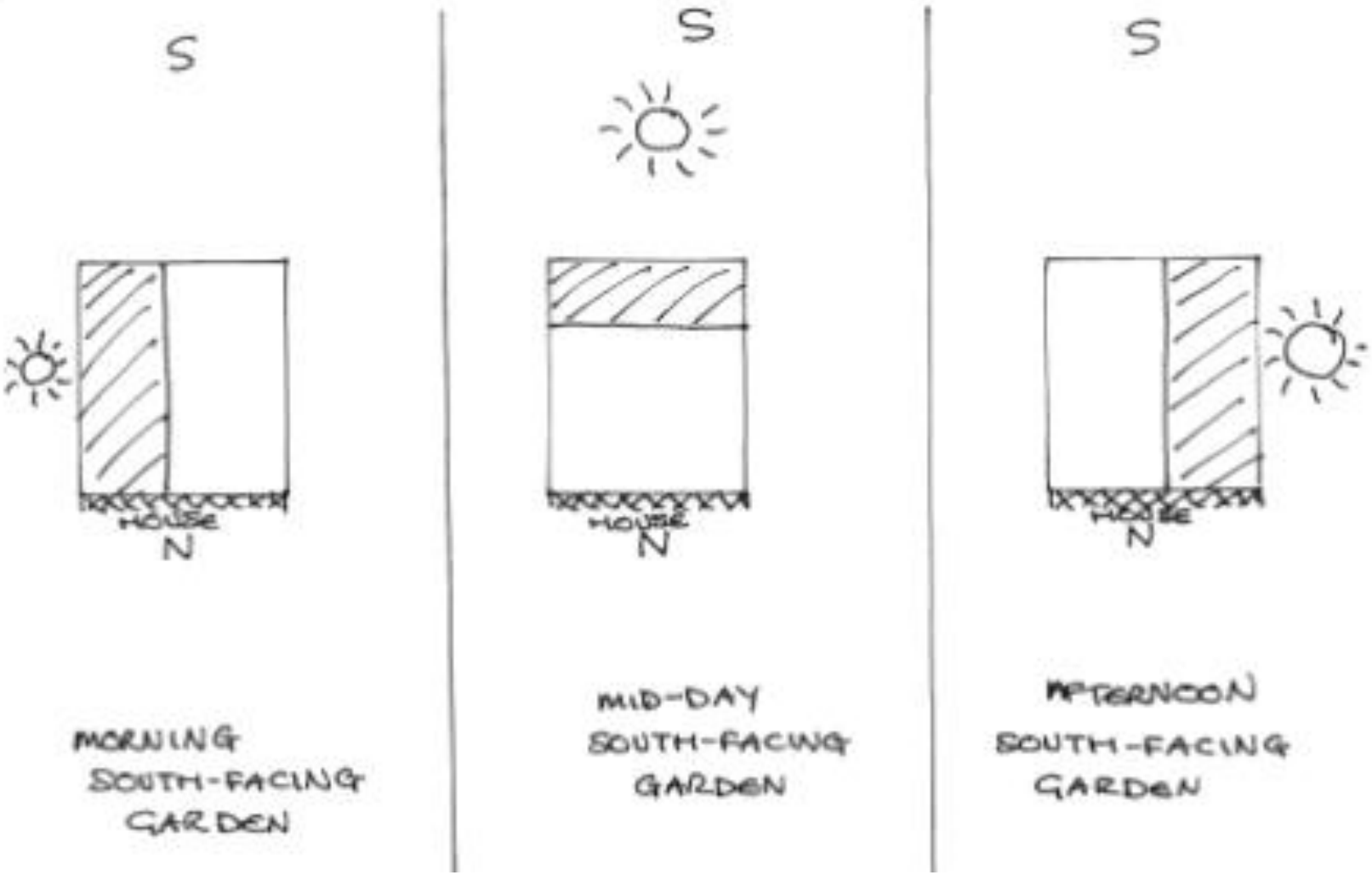
Every outdoor space is part of a larger whole.

Look beyond the immediate boundary of the site.

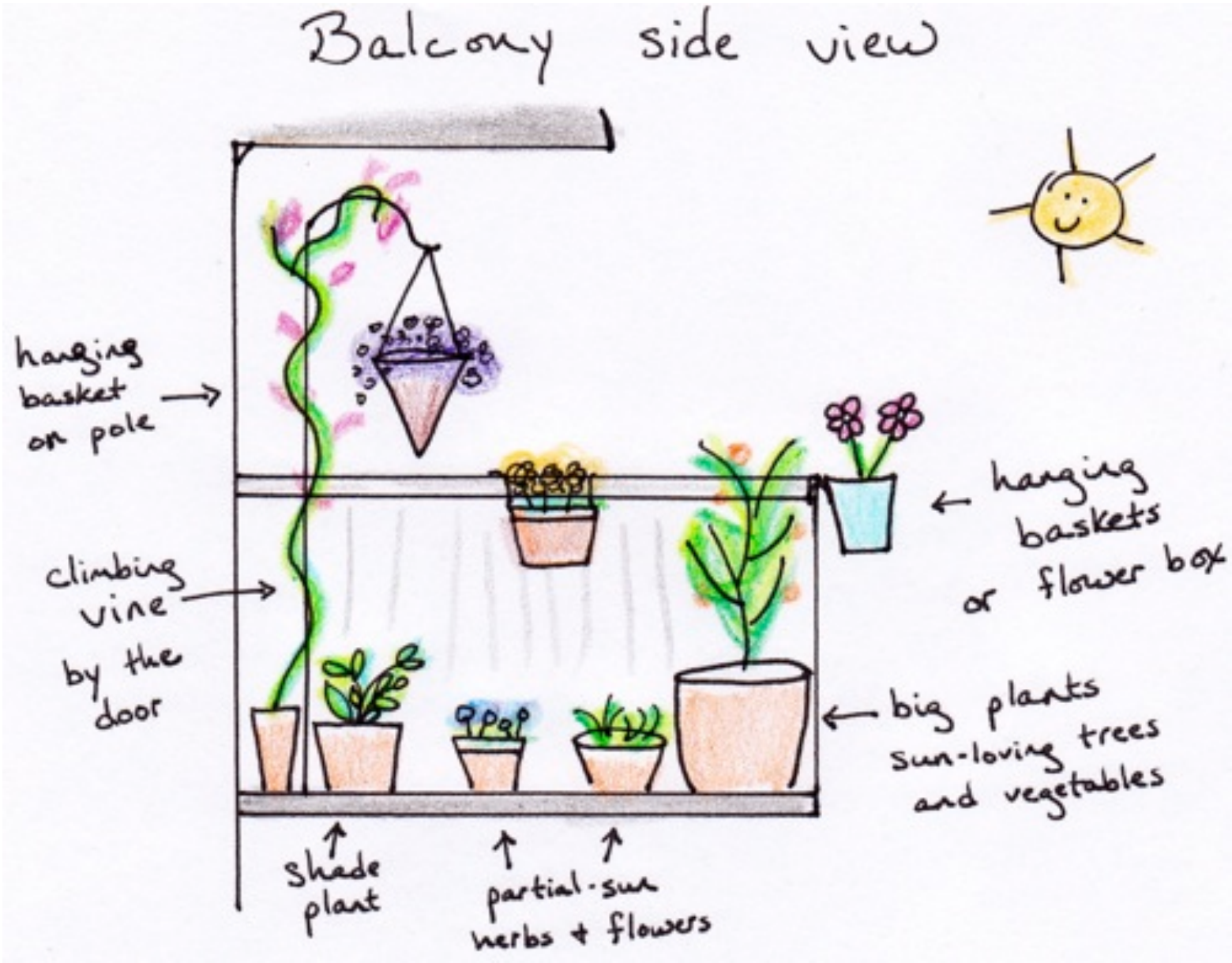
The Garden and Its Setting

- Aspect (orientation of the garden)
- Shade
- Climate
- Wind Patterns
- Drainage
- Assessing the Soil
  - Testing
  - Soil Indicators

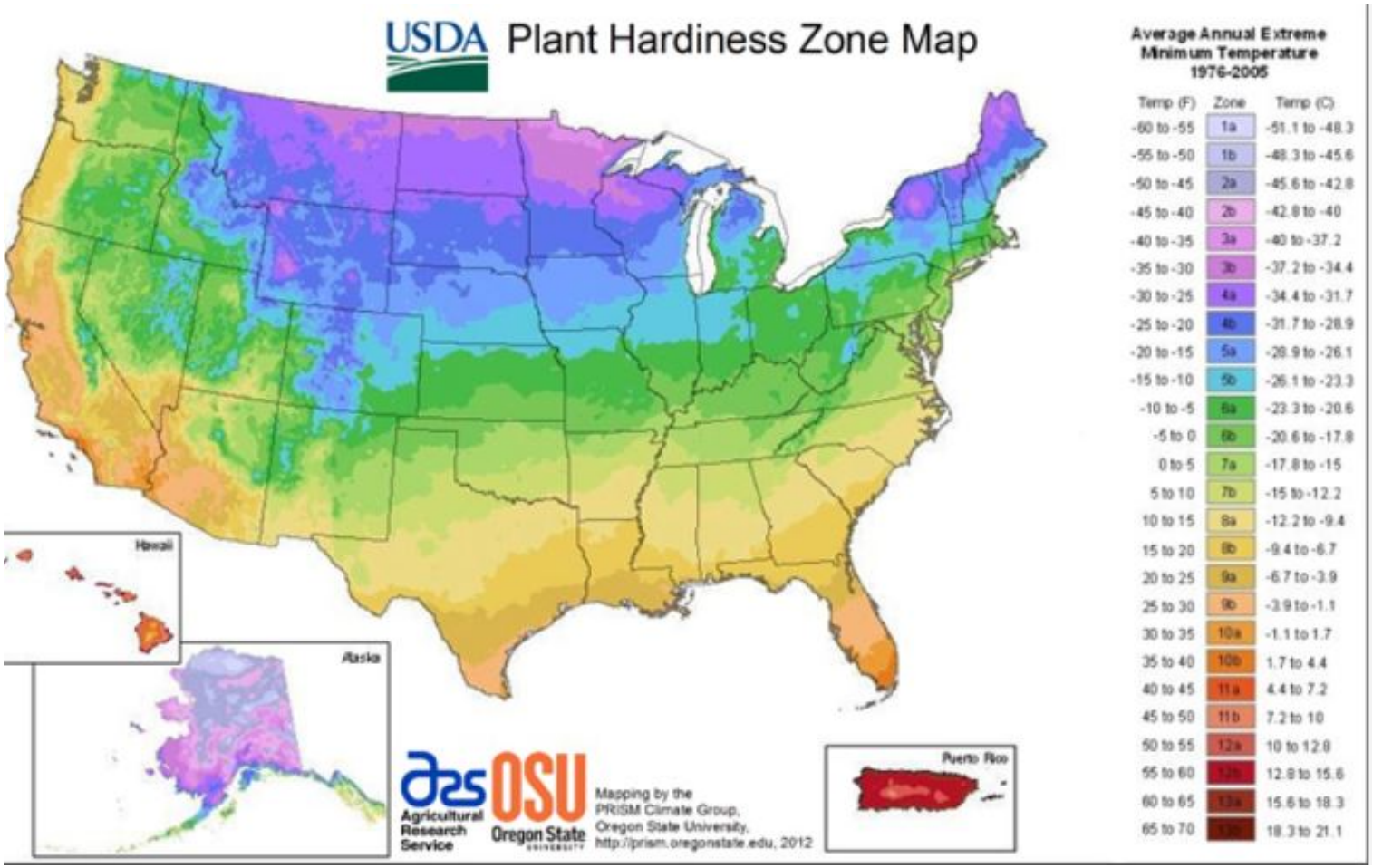
Aspect


S
HOUSE
N
MORNING
SOUTH-FACING
GARDEN
S
HOUSE
N
MID-DAY
SOUTH-FACING
GARDEN
S
HOUSE
N
AFTERNOON
SOUTH-FACING
GARDEN

Shade


Balcony side view
hanging basket on pole
climbing vine by the door
hanging baskets or flower box
big plants sun-loving trees and vegetables
shade plant
partial-sun herbs + flowers

Climate


USDA Plant Hardiness Zone Map
Average Annual Extreme Minimum Temperature 1976-2005
Temp (F) Zone Temp (C)
-60 to -55 1a -51.1 to -48.3
-55 to -50 1b -48.3 to -45.6
-50 to -45 2a -45.6 to -42.8
-45 to -40 2b -42.8 to -40
-40 to -35 3a -40 to -37.2
-35 to -30 3b -37.2 to -34.4
-30 to -25 4a -34.4 to -31.7
-25 to -20 4b -31.7 to -28.9
-20 to -15 5a -28.9 to -26.1
-15 to -10 5b -26.1 to -23.3
-10 to -5 6a -23.3 to -20.6
-5 to 0 6b -20.6 to -17.8
0 to 5 7a -17.8 to -15
5 to 10 7b -15 to -12.2
10 to 15 8a -12.2 to -9.4
15 to 20 8b -9.4 to -6.7
20 to 25 9a -6.7 to -3.9
25 to 30 9b -3.9 to -1.1
30 to 35 10a -1.1 to 1.7
35 to 40 10b 1.7 to 4.4
40 to 45 11a 4.4 to 7.2
45 to 50 11b 7.2 to 10
50 to 55 12a 10 to 12.8
55 to 60 12b 12.8 to 15.6
60 to 65 13a 15.6 to 18.3
65 to 70 13b 18.3 to 21.1
Hawaii
Alaska
Puerto Rico
Agricultural Research Service
Oregon State University
Mapping by the PRISM Climate Group, Oregon State University, http://prism.oregonstate.edu, 2012

Wind Patterns

A permeable windbreak will provide wind protection for up to 15 times the height of the windbreak downwind as well as up to 5 times into the wind.

A solid barrier, such as fibro cement fencing, is not a good windbreak as it causes the wind to compress resulting in a tumble drier effect on the downwind side of the barrier.

Drainage

Here's a simple drainage test…

- Dig a hole about one foot deep.
- Fill with water and allow it to drain completely.
- Immediately refill the pit and measure the depth of the water with a ruler.
- 15 minutes later, measure the drop in water in inches, and multiply by 4 to calculate how much water drains in an hour.

Here's what your calculations mean:

- Less than one inch per hour is poor drainage, (likely more of a clay soil) indicating the site may stay wet for periods during the year. Plants that don't tolerate poor drainage (like edibles) will suffer.
- One to six inches of drainage per hour is desirable (likely to be loam),
- Soils that drain faster than six inches per hour have excessive drainage (likely to be a more sandy soil)

Soil Composition

Cloudy water in the top of the jar indicates plenty of clay.

Soil Indicators

- Viburnum—chalky, alkaline soil
- Heather—dry, acid, or peaty soil
- Nettle, Chickweed—potentially fertile soil
- Catnip—chalky or alkaline soil
- Sheep's sorrel—poor, light, dry, acid soil
- Foxglove—dry, sandy, or gravely soil
- Gorse/Scotchbroom—poor, infertile soil
- Buttercup—wet, infertile soil
- Goldenrod—wet, sandy soil

The Outdoor Room: Walls

- The Walls
  - Shrubs, low-branching trees, exterior walls of buildings, bodies of water, groundcover
  - Their function is:
    - To define limits, view, and shape
    - Direct the flow of traffic
    - Provide security
    - Provide full/partial privacy

The Outdoor Room: Walls

The Outdoor Room: Floors

- The Floors
  - Grass, turf, groundcovers, flowers, water, hard paving, soft paving
  - Their function is:
    - To absorb impact of traffic
    - Define base plane

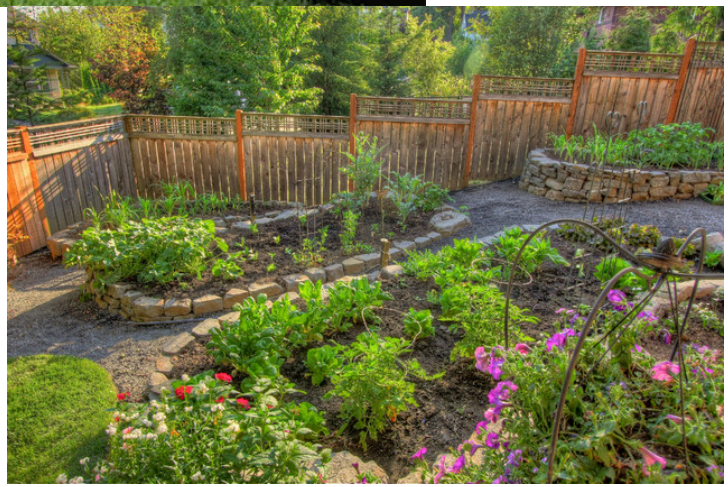
The Outdoor Room: Ceilings

- The Ceilings
  - Trees, Vines on Trellis or Pergola, Buildings, Overhangs, Awnings, Canopies
  - Their function is:
    - To provide full or partial shade
    - Define the upper limits of the room
    - Provide privacy from overhead views

Kubota Garderns
Seattle, WA

The Principles of Garden Design

- Unity
- Colors
- Line
- Form
- Texture
- Scale
- Balance
- Simplicity or Variety



Unity

- Attracts and holds attention
- Consistency in landscape components like plants, pavings, colors, and fixtures

UNITY:
UNITY ATTRACTS AND HOLDS ATTENTION. IT ORGANIZES VIEW INTO ORDERLY GROUPS WITH EMPHASIS.

Color

- Color theme is overall pattern of the entire landscape
- Color greatly affects the emotions, provides the greatest visual appeal, and evokes the greatest response

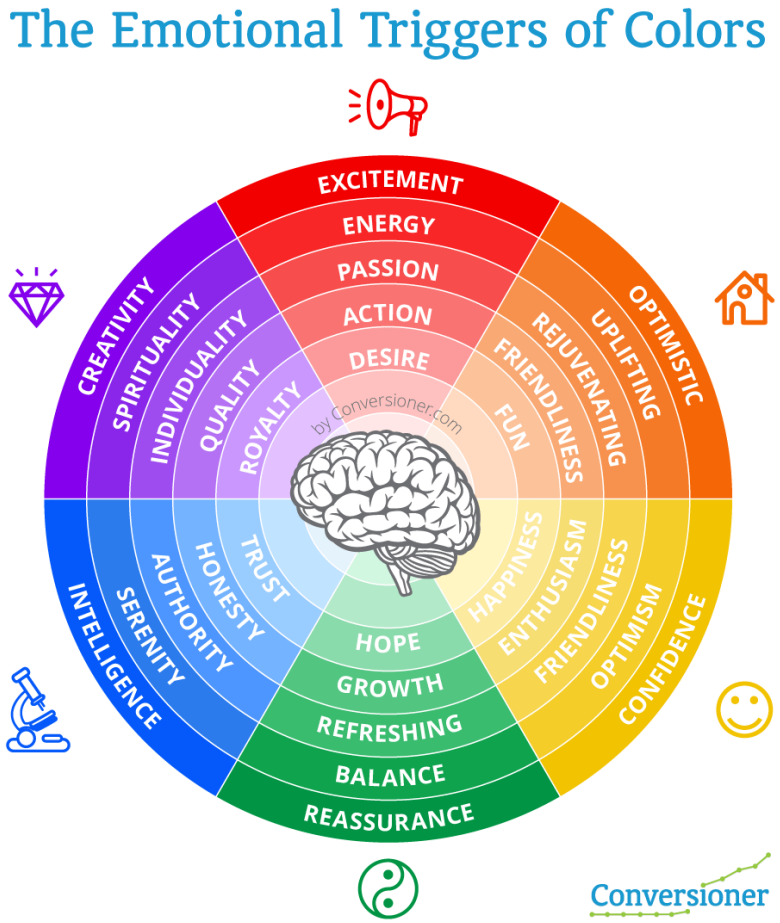
Color

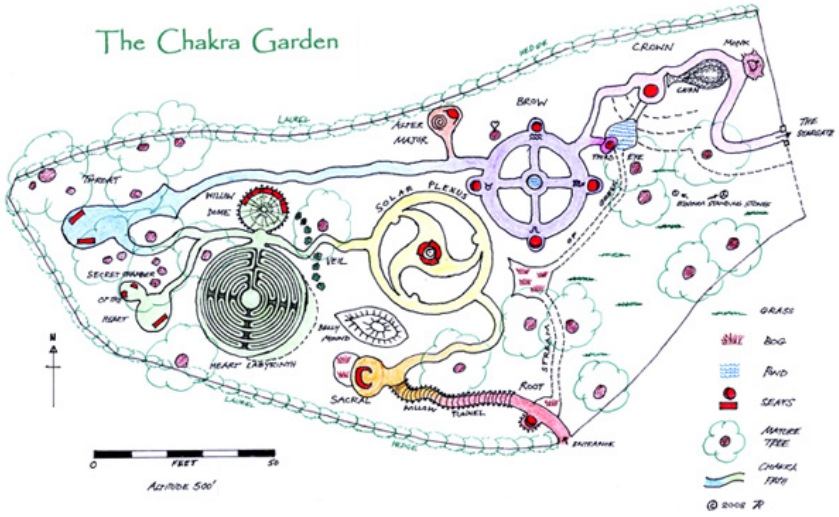
- Cool Colors (green, blue, purple)
  - Restful
  - Recede into the background
  - Suggest distance
  - Less conspicuous
  - Low scale

Color

- Warm Colors (red, orange, yellow)
  - Cheerful
  - Stimulating
  - Come forward
  - Conspicuous
  - High scale

Color


The Emotional Triggers of Colors
EXCITEMENT
ENERGY
PASSION
ACTION
DESIRE
OPTIMISTIC
UPLIFTING
REJUVENATING
FRIENDLINESS
FUN
CREATIVITY
SPIRITUALITY
INDIVIDUALITY
QUALITY
ROYALTY
by Conversioner.com
INTELLIGENCE
SERENITY
AUTHORITY
HONESTY
TRUST
CONFIDENCE
OPTIMISM
FRIENDLINESS
ENTHUSIASM
HAPPINESS
HOPE
GROWTH
REFRESHING
BALANCE
REASSURANCE
Conversioner


The Chakra Garden
CROWN
BROW
SOLAR PLEXUS
SACRAL
ROOT
HEART LABYRINTH
GRASS
BOG
POND
SEATS

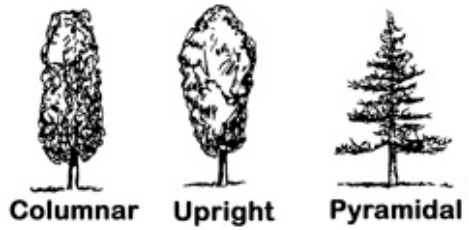
Line

- Repeating basic lines, colors, and materials throughout the landscape
- Flow between areas of varying use
- Edges of beds define rooms

Form

- Form is the shape of a plant
  - Upright
  - Oval
  - Spreading
  - Broad-Spreading
  - Columnar
  - Weeping

Form


Columnar
Upright
Pyramidal

Oval

Spreading

Spreading

Oval

Upright

Weeping

Rounded

Vase Shaped

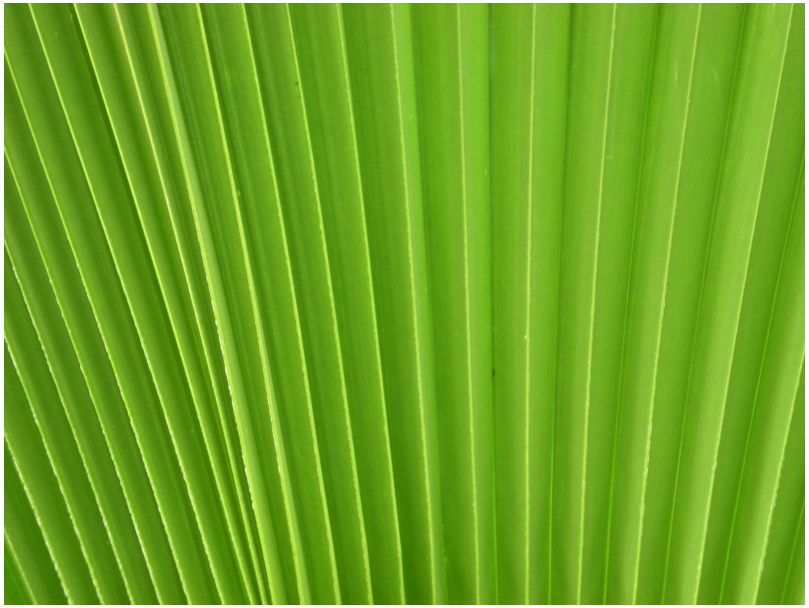
Weeping

Rounded

Irregular

Texture

- The surface quality of an object that can be seen or felt.
- In the landscape, includes buildings, walkways, patios, groundcovers, and plants
  - Size and shape of leaves
  - Size of twigs
  - Spacing of leaves and twigs
  - Colors and shading
  - Gloss or dullness of leaves
  - Coarse, medium, fine



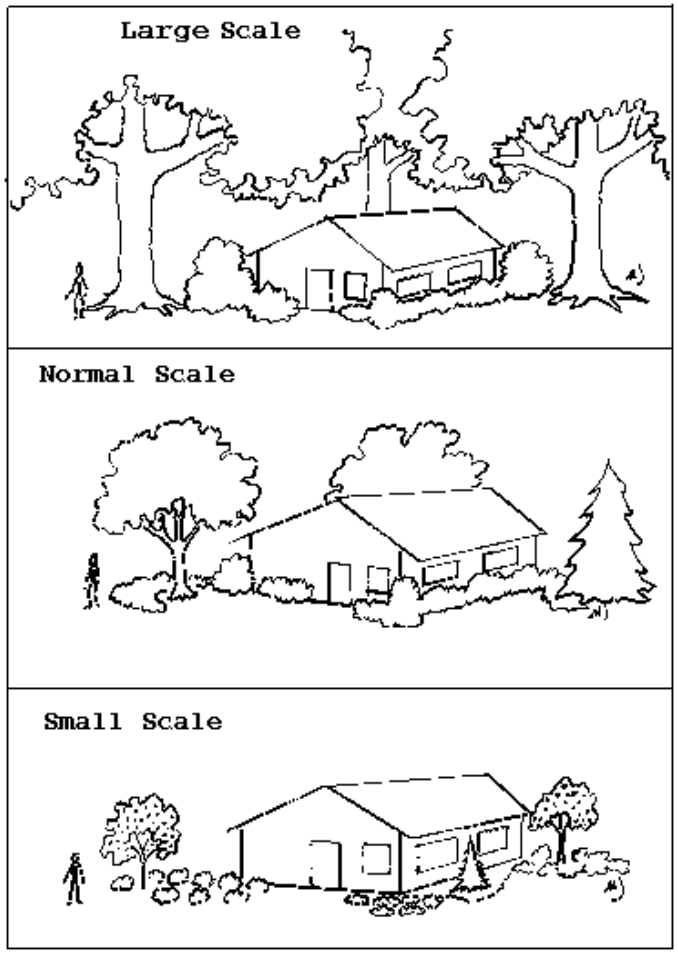
Texture

- To emphasize form or color, use same texture type
- For balance, use textures of all 3 types

Texture

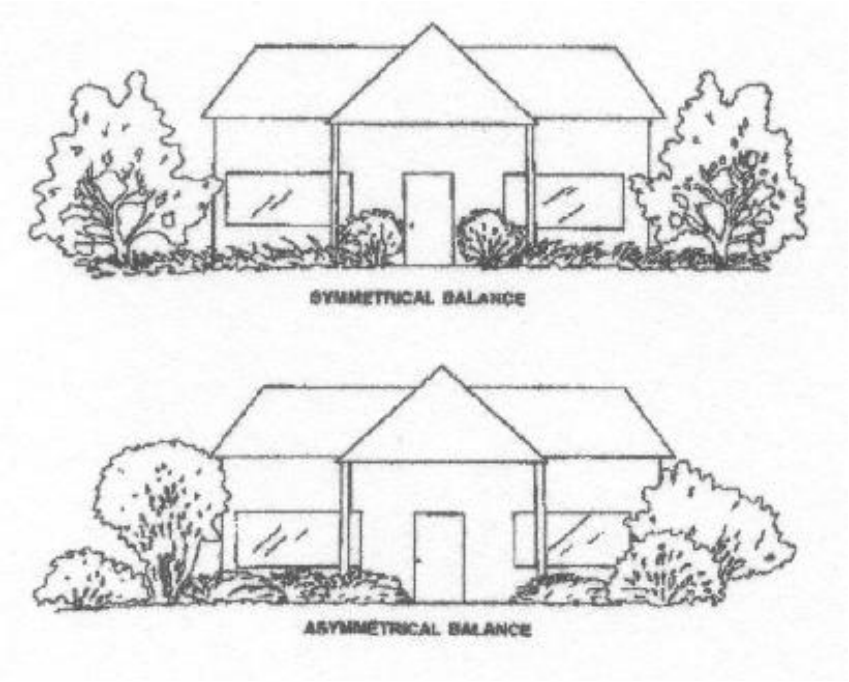
- Texture affects perception of distance and scale
- To make a space feel larger, place coarse textures along a perimeter and fine textures closer to viewer
- The greater the distance a plant is, the smoother the texture appears

Scale



- Scale refers to the size of an object or objects in relation to the surroundings.
- Size refers to definite measurements while scale describes the relationship between adjacent objects.

Balance

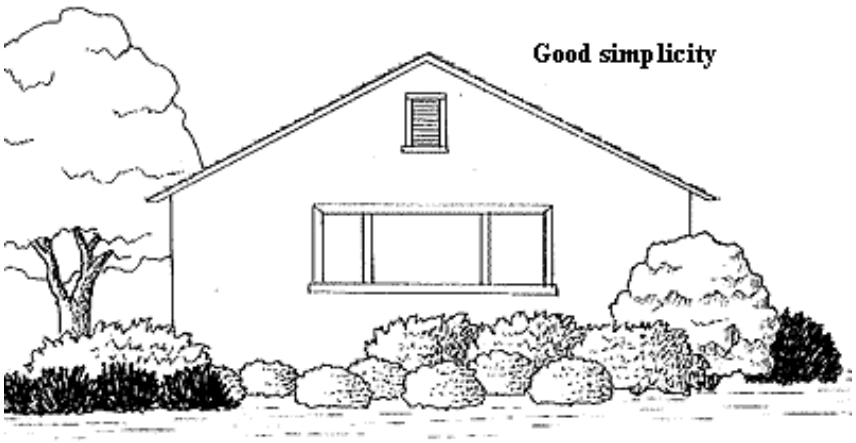


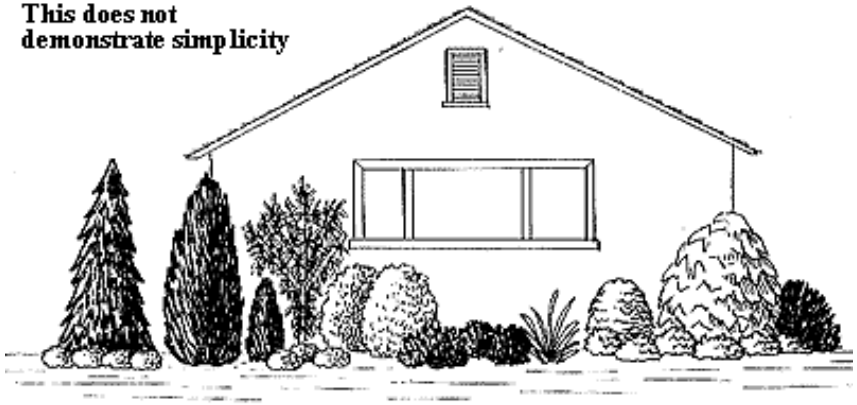
- Symmetrical: elements on either side of axis are identical (formal)
- Asymmetrical: different elements with similar visual weight on either side of axis (informal)
  - Color adds visual weight
  - Coarse texture adds visual weight

Simplicity

- Few species grouped together in mass plantings throughout landscape
- Limited number of colors (2-3) repeated throughout the garden
- Some degree of repetition helps create unity
- Diversity in form, texture, and color prevents monotony

Simplicity





Simplicity

Variety

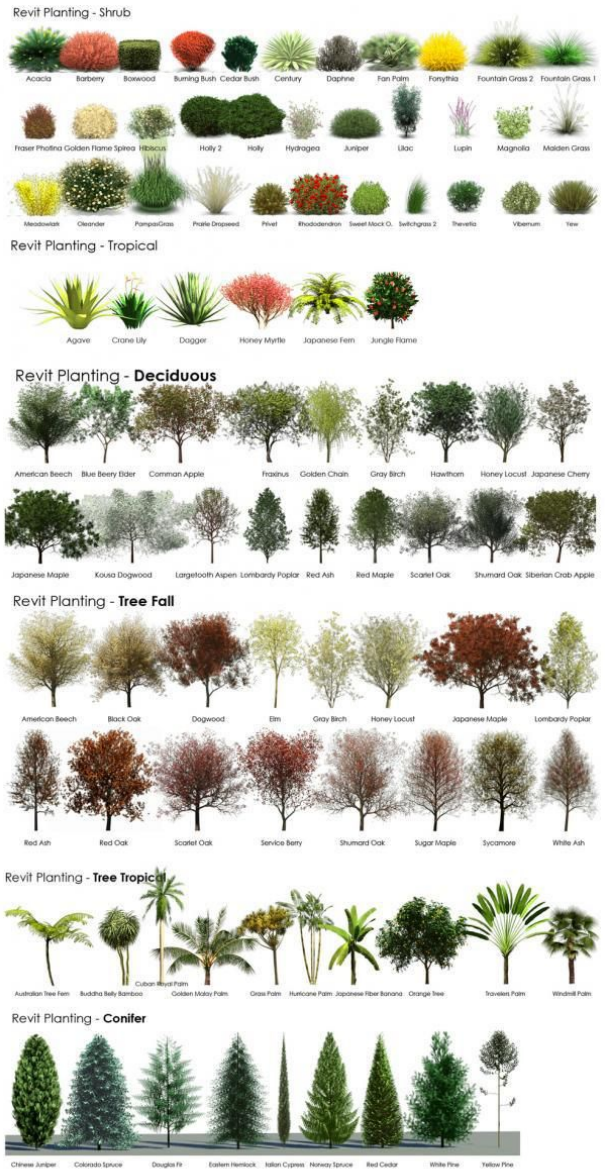
- Breaks up monotony and creates interest
- Filling open spaces with various species, but not in groups
- Still requires some intention and planning

Plant Selection

- Will the plant fill its assigned role in the design?
  - Aesthetic
  - Architectural
  - Engineering
- Will the plant grow/ thrive in the given conditions?
- Is the plant affordable?

Plant Selection

- Things to consider:
  - Mature size
  - Hardiness
  - Foliage color and texture
  - Bark color and texture
  - Flowering qualities
  - Fruiting qualities
  - Rooting system
  - Foliage silhouette
  - Deciduous or evergreen?



Plant Selection

- More things to consider:
  - Presence of thorns?
  - Brittleness of wood
  - Life expectancy and growth rate
  - Soil and light preferences
  - Pest susceptibility
  - Wildlife habitat and attraction
  - Maintenance schedule/ degree of difficulty
  - Availability
  - Cost
  - Edible Value
  - Therapeutic Value

Favorite Resources

- Plants for a Future database
  - http://www.pfaf.org/user/Default.aspx

- OSU Dept of Horticulture Landscape Plants database
  - http://oregonstate.edu/dept/ldplants/
- OSU Dept of Horticulture Woody Plants database
  - http://oregonstate.edu/dept/ldplants/plant_ident/

Activity

- Break into groups
- Each group will observe one of 3 sites on the NCNM campus and report back to the class
  - Min Zidell garden
  - Galen's Way garden
  - Potential future food forest site

Activity

- You are looking for design elements
  - The garden and its setting
    - Boundaries, Aspect, Shade, Climate, Wind Patterns, Drainage, Soil
  - Walls
  - Floors
  - Ceilings
  - Landscape Design Principles
    - Unity, Color, Line, Form, Texture, Scale, Balance, Simplicity, Variety

Activity

- What are the challenges in your assigned area?
- What aspects of this area would you choose to focus on and highlight?
- Choose 3 plants from your area and look them up using the provided databases. Do you expect this plant to change much throughout the year? What value is it bringing to the landscape? Bring back a plant sample if possible (leaf, branch, etc).