COLOR THEORY

• Color wheel
• Color harmony
• Color context

Title page image: http://2.bp.blogspot.com/_2DfKUQYo5p4/S8s_NV1PhII/AAAAAAAABdc/OTB-dVPiKjl/s1600/96dpi.jpg
COLOR WHEEL

Used in art

http://www.colormatters.com/color-and-design/basic-color-theory
COLOR WHEEL

<table>
<thead>
<tr>
<th>Primary colors</th>
<th>Secondary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red, blue, yellow</td>
<td>Green, orange, purple</td>
<td>Yellow-orange, red-orange</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Red-purple, blue-purple</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blue-green, yellow-green</td>
</tr>
</tbody>
</table>
COLOR HARMONY

• Pleasing to the eye.
• Creates an inner sense of order and balance in the visual experience.
• When not in harmony the experience is boring or chaotic.

http://www.colormatters.com/color-and-design/basic-color-theory
COLOR HARMONY

• When not in harmony the experience is chaotic or boring.

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COLOR HARMONY

• Color harmony delivers visual interest and a sense of order.

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COLOR HARMONY

Formula 1: Analogous colors

- Analogous colors are any three colors which are side by side on a 12 part color wheel, such as yellow, yellow-green, and green. Usually one of the three colors predominates.

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COLOR HARMONY

Formula 2: Complementary colors

- Complementary colors are any two colors which are directly opposite each other, such as red and green and red-purple and yellow-green. In the illustration above, there are several variations of yellow-green in the leaves and several variations of red-purple in the orchid. These opposing colors create maximum contrast and maximum stability.

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COLOR HARMONY

Formula 3: Nature

- Nature provides a perfect departure point for color harmony. In the illustration above, red yellow and green create a harmonious design, regardless of whether this combination fits into a technical formula for color harmony.

http://www.colormatters.com/color-and-design/basic-color-theory
COLOR CONTEXT

Is there a red square that appears larger than the others?

http://www.colormatters.com/color-and-design/basic-color-theory
COLOR CONTEXT

How many different colors do you see?

http://www.colormatters.com/color-and-design/basic-color-theory
COLOR CONTEXT

http://www.colormatters.com/color-and-design/basic-color-theory
Global Meanings of Red

• Red is one of the top two favorite colors of all people.

• Red is the most popular color used on flags in the world. Approximately 77% of all flags include red.

• Red is the international color for stop.

The history of languages reveals that red is the first color after black and white. (All languages have words for black and white. If a third hue exists, it is red.)
Global Meanings of Yellow

• In almost every culture yellow represents sunshine, happiness, and warmth.
• Yellow is the color most often associated with the deity in many religions (Hinduism and Ancient Egypt)
• Yellow is the color of traffic lights and signs indicating caution all over the world.
**BLUE**

- Blue has more complex and contradictory meanings than any other color. These can be easily explained by pinpointing by the specific shade of blue.
- Blue is the #1 favorite color of all people.
- 53% of the flags in the world contain blue.
- Blue is the most commonly used color in corporate identity.
- A dark blue suit is professional business attire.
- Blue jeans are worn all over the world.
- Aristocracy is blue-blooded in all European languages.

http://www.colormatters.com/blue

GREEN

Global Meanings of Green

• Green is universally associated with nature.
• Green symbolizes ecology and the environment.
• Traffic lights are green all over the world.

Designing with Green

• There are more shades of green than that of any other color. Greens range from yellow-greens, such as lime and avocado greens, to those with a blue tinge (such as emerald). Aqua or turquoise are colors that are typically half green and half blue.

• Green is no longer just a color. It's now the symbol of ecology and a verb.

http://www.colormatters.com/green
COLOR SCHEMES IN THE LANDSCAPE:

Charleston, SC

Regents Park, London

Photos by Ellen Vincent
COLOR SCHEMES IN THE LANDSCAPE:

Regents Park, London

Falls Park, Greenville, SC

Regents Park, London

Photos by Ellen Vincent
COLOR SCHEMES IN THE LANDSCAPE:

Falls Park, Greenville, SC

Rock Quarry Park, Greenville, SC

Photos by Ellen Vincent
COLOR IN THE LANDSCAPE: ANNUAL VINE

*Mandevilla x ‘Sunmandecrikin’ P.P.# 17736*, Sun Parasol® Giant Crimson Mandevilla

- Zones: 8-10
- Red 4-6” blooms spring – fall
- Stems 10-15’ long
- Foliage dark glossy green
- Full sun
- Soil loamy, fertile, well-drained
- Water regularly
- Container or trellis, needs support
- Reputed insect and disease resistant (WFF)
- Evergreen tropical


COLOR IN THE LANDSCAPE: ANNUAL

_Nemesia fruticans_ ‘Blue Bird’

- Zones: 9-10
- Blue purple with white spot at base of lower lip, clove scented
- 10-12” h x 8-10” w
- Lance shaped green leaves
- Full sun, part shade
- Soil loamy, fertile, well-drained
- Water regularly
- Container, bedding plants
- Self-cleaning, no deadheading

http://www.provenwinners.com/plants/nemesia/bluebird-nemesia-fruticans
COLOR IN THE LANDSCAPE: PERENNIALS

Aquilegia x‘ Cardinal’

- Zones: 3-9
- Red and white bloom late spring/early summer with upturned bloom
- 18-24” h, 12-24” w
- Gray colored foliage
- Part shade
- Soil loamy, sandy, well-drained
- Border, landscape
- Provides nectar for butterflies, hummingbirds
- Member of the Songbird Series
- Award of Garden Merit from the Royal Horticulture Society
- Some native heritage

http://www.waysidegardens.com/aquilegia-x-cardinal/p/49293//
COLOR IN THE LANDSCAPE: PERENNIALS

Aquilegia caerulea ‘Origami Mix’

- Zones: 3-8
- Bloom early summer, 6 colors (4 of them bicolors)
- All colors open at the same time
- 16-18” h, 18-24” w
- Compact habit
- Full sun, pt shade
- Soil normal, loamy, well-drained
- Container, landscape
- Not native

http://www.waysidegardens.com/aquilegia-origami-mix/p/49294/
COLOR IN THE LANDSCAPE: PERENNIALS

Asclepius tuberosa

- Zones: 3-9
- Bloom mid-late summer
- 18-24" h, 36" w
- Compact habit
- Full sun
- Soil normal, loamy, wet or dry
- Container, landscape
- Provides nectar for butterflies, hummingbirds
- Reputed disease resistant, drought tolerant, heat tolerant, pest resistant

http://www.waysidegardens.com/asclepias-tuberosa/p/49296/
COLOR IN THE LANDSCAPE: PERENNIALS


- Zones: 4-9
- Indigo-blue blooms
- Blooms late spring-early summer
- 3’ h, 2.5-3’ w
- Upright (more compact) habit
- Full sun/part shade
- Soil normal, loamy, well-drained
- Border
- Ornamental seed pods in fall

http://www.waysidegardens.com/baptisia-blueberry-sundae-ppaf/p/49298//
COLOR IN THE LANDSCAPE: PERENNIALS


- Zones: 4-9
- Yellow blooms on charcoal black stems
- Blooms late spring-early summer
- 3’ h,  2.5-3’ w
- Upright habit
- Full sun/part shade
- Soil tolerant, well-drained
- Containers, border
- Reputed disease resistant, drought tolerant, heat tolerant, humidity tolerant, pest resistant

http://www.waysidegardens.com/baptisia-lemon-meringue-ppaf/p/49299/
COLOR IN THE LANDSCAPE: PERENNIALS

*Achillea ‘Saucy Seduction’ PP#20,782*, bred in Holland and introduced by the British nursery Blooms of Bressingham, part of the Seduction™ series

- Zones: 4-9
- Dark pink-rose fragrant blooms
- Blooms early summer to early fall
- 18-24” h, 24-28” w
- Foliage color gray-med green
- Compact habit, needs deadheading for rapid rebloom
- Full sun
- Soil tolerant, well-drained
- Containers, border, cut flower
- Attracts butterflies, hummingbirds

COLOR IN THE LANDSCAPE: PERENNIALS

Echinacea purpurea ‘PowWow Wild Berry’

- Zones: 4-9
- Purple, dark rose, magenta blooms
- Blooms early summer to mid fall
- 20-24” h, 12-16” w
- Foliage dark green
- Compact habit, no deadheading needed
- Full sun
- Soil tolerant, well drained
- Containers, border, cut flower
- Attracts butterflies, birds
- Reputed drought tolerant, heat tolerant, humidity tolerant, pest resistant, disease resistant

http://www.waysidegardens.com/echinacea-purpurea-powwow-wild-berry/p/31548/
COLOR IN THE LANDSCAPE: PERENNIALS

_Echinacea ‘Solar Flare’ PPAF_ bred by Richard Saul of Georgia

- Zones: 4-8
- Electric Kool-Aid red, brown center
- Blooms early summer to mid fall
- 24-36” h, 18-24” w
- Foliage olive green
- Compact habit
- Full sun
- Soil loamy, well drained
- Containers, border, cut flower
- Attracts butterflies, birds
- Reputed deer resistance, disease resistant, drought tolerant, heat tolerant, humidity tolerant, pest resistant

COLOR IN THE LANDSCAPE: ORNAMENTAL GRASS

*Muhlenbergia capillaris*

- Zones: 6-10
- Pink-purple blooms late summer to fall
- 4’ h x 3’ w
- Foliage blue green-gray green
- Compact neat and tidy habit
- Full sun
- Soil loamy, well drained
- Containers, border, hedge, cut flower
- Reputed disease resistant, drought tolerant, heat tolerant
- Native to South Carolina

COLOR IN THE LANDSCAPE: ORNAMENTAL GRASS

*Hakonechloa macra* var. *Aureola*

- Zones: 4-8
- Red blooms early fall
- 12” h x 18” w
- Cascading foliage, 12” long, narrow green center and yellow edged leaves, turn red in fall
- Attractive habit, shimmers in wind
- Full sun, shade
- Soil loamy, moisture retentive, well drained
- Border, container, groundcover

COLOR IN THE LANDSCAPE: ORNAMENTAL GRASS

*Hakonechloa macra 'Beni-kaze'* Japanese Forest grass, name means ‘red wind’ in Japan

- Zones: 5-9
- Red blooms early fall
- 24-36” h x 30-36” w
- Cascading layers of color-green in summer, red in fall; slightly twisted pointed leaves-appears to move
- Full sun, part shade
- Soil loamy, moisture retentive, well drained
- Border, container, groundcover
- Reputed deer resistance, heat tolerant
- Native to Japan, new introduction

http://www.waysidegardens.com/hakonechloa-macra-beni-kaze/p/49260/
COLOR IN THE LANDSCAPE: SHRUBS

*Hydrangea macrophylla* Twist-n-Shout® Plant Patent #20,176. Cultivar name: 'PIIHM-1'.

- One of the Endless Summer ® series from Dr. Michael Dirr, the first reblooming lacecap hydrangea
- Zones: 4-9
- Blue and pink blooms
- Blooms early summer & early fall
- 3-5’ h & w
- Foliage dark green, turns orange, red, maroon in fall
- Stems pinkish red
- Mound shaped habit, compact
- Part shade
- Soil loamy
- Containers, border
- Reputed disease resistant, heat tolerant, humidity tolerant, pest resistant

http://www.waysidegardens.com/hydrangea-macrophylla-twist-n-shoutreg/p/48869//
COLOR IN THE LANDSCAPE: SHRUB ROSES

*Rosa Eyeconic™ 'Lemonade' PPAF* hybrid hulthemia roses bred by Jim Sproul

- Zones: 6-9
- Yellow with dark red spot at base of each petal
- 4” fragrant blooms spring, summer, fall
- 4.5’ h & w
- Foliage glossy dark green
- Full sun
- Soil loamy, well-drained
- Containers, border, hedge
- Reputed disease resistant; self cleaning

http://www.waysidegardens.com/rosa-eyeconictrade-lemonade-ppaf/p/36567/
COLOR IN THE LANDSCAPE: SHRUB ROSES

*Rosa Eyeconic™ ‘Pink Lemonade' PPAF hybrid hulthemia roses bred by Jim Sproul*

- Zones: 6-9
- Pink with dark red spot at base of each petal
- 3.5” fragrant blooms spring, summer, fall, 5 blooms per stem
- 3’ h & w
- Foliage glossy dark green
- Full sun
- Soil loamy, well-drained
- Containers, border, hedge
- Reputed disease resistant; self cleaning (no deadheading)

**COLOR IN THE LANDSCAPE: SHRUB ROSES**


- **Zones:** 4-9
- Fire-engine red (or lighter cherry-scarlet in hot climates)
- **3”** lightly fragrant blooms in waves early summer into fall
- **3’** h & w
- Burgundy-violet fall foliage and orange-red hips
- Full sun
- Soil loamy, well-drained
- Containers, border, hedge
- Reputed disease resistant (blackspot), Japanese beetles, leafhoppers, and rose midge
- No deadheading needed; AARS (All American Rose Selection)

http://www.waysidegardens.com/knock-out-rose/p/26903/
COLOR IN THE LANDSCAPE: SHRUBS

*Buddleia davidii* Lo & Behold™ 'Blue Chip' PP# 19,991 Introduced by Raulston Arboretum

- Zones: 5-9
- Blue lightly fragrant blooms, continuous, not in waves
- Doesn’t need deadheading
- Blooms early summer to mid fall
- 2’ h & w
- Dwarf habit, compact
- Full sun
- Soil loamy, well-drained
- Containers, border, groundcover
- Attracts hummingbirds and butterflies
- Reputed deer resistance, drought tolerant, heat tolerant

COLOR IN THE LANDSCAPE: SHRUBS

*Caryopteris x clandonensis* ‘Longwood Blue’

Zones: 5-9

- Blue blooms, prolific bloomer
- Doesn’t need deadheading
- Blooms mid summer to mid fall
- 18-24” h x 24” w
- Foliage light green to silver gray
- Upright habit
- Full sun to part shade
- Soil loamy, well-drained
- Containers, border, groundcover
- Attracts hummingbirds and butterflies
- Reputed deer resistant, heat tolerant

COLOR IN THE LANDSCAPE: SHRUBS

x *Sinocalycalycanthus raulstonii* 'Hartlage Wine' (cross between Chinese and native allspice, introduced by Raulston Arboretum)

- **Zones**: 6-9
- **3” wine red fragrant blooms**
- **Blooms early summer**
- **6’ h x 5-6’ w**
- **Foliage dark glossy green turning yellow in fall**
- **Upright habit, fragrant stems**
- **Full sun to part shade, full sun requires more moisture**
- **Soil loamy**
- **Border, hedge, specimen**
- **Reputed to be heat tolerant, disease resistant**

http://www.waysidegardens.com/x-sinocalycalycanthus-hartlage-wine/p/47440/
COLOR IN THE LANDSCAPE: SHRUBS

- *Illicium floridanum 'Pink Frost' PP#21,287*, variegated selection of our native evergreen shrub, 'Pink Frost'
- Zones: 6-9
- Maroon blooms
- Blooms mid spring
- 6-10’ h x 6’ w
- Variegated foliage tinted pink in spring
  cream edged in summer, total pink in fall
- Upright habit, fragrant stems
- Full sun to part shade, full sun requires more moisture
- Soil loamy
- Border, hedge, specimen
- Reputed to be drought tolerant, deer resistant


http://www.plantdelights.com/images/Illicium_floridanum_Pink_Frost.jpg
COLOR IN THE LANDSCAPE: TREES


- Zones: 4-9
- Male (non-fruiting)
- Blooms mid spring
- 14-16’ h x 5-6’ w
- Fan shaped green foliage emerges slightly curled, turns bright yellow in fall
- Columnar habit-shear back in early spring for 3-4 yrs.
- Full sun to part shade
- Soil loamy, well-drained
- Border, hedge, specimen
- Reputed to be tolerant of air pollution, heat, and other environmental stresses; disease resistant, drought tolerant, heat tolerant, pest resistant

COLOR IN THE LANDSCAPE: TREES

*Nyssa sylvatica* ‘Wildfire’

- Zones: 4-9
- Black berries attract wildlife
- 30-50’ h x 20-30’ w
- Foliage emerges red turns dark green, fiery red in fall
- Upright habit, attractive furrowed gray bark
- Full sun
- Soil loamy, well-drained
- Specimen
- Reputed disease resistance; including bacterial leaf spot
- Native

COLOR IN THE LANDSCAPE: TREES

*Cornus florida var. rubra Cherokee Brave™*

- **Zones:** 5-9
- Deep red bracts starred with white appear before leaves in spring
- **15’ h x 15-20’ w**
- Bright red fruit in summer, fall, and winter attracts wildlife
- New foliage tinted maroon, turns green in summer and maroon again in autumn
- Slow growing, multi-stemmed, horizontal layered branching
- Full sun, part shade
- Soil loamy, well-drained
- Border, specimen
- Reputed disease resistant (powdery mildew), heat tolerant, humidity tolerant

COLOR IN THE LANDSCAPE: TREES

- *Cercis chinensis 'Don Egolf'* The first Redbud ever released by the U.S. National Arboretum, took 16 years to release
- Zones: 6-9
- Non fruiting - sets no seed
- Neon rose, red, lavender blooms in early spring
- 8-10’ h & w
- Heart shaped dark green foliage
- Slow growing, multi-stemmed
- Full sun, part shade
- Soil tolerant; loamy, well-drained
- Container, border, hedge, specimen
- Reputed disease resistant (even to canker), drought tolerant, heat tolerant, humidity tolerant

http://www.waysidegardens.com/cercis-chinensis-don-egolf/p/48944/
COLOR IN THE LANDSCAPE: TREES

**Cornus kousa var. chinensis 'Milky Way'**

- Zones: 5-8
- 20-30’ h & w
- White blooms late spring - early summer, prolific producer
- Red berries in late summer to fall attract wildlife
- Fast growing, multi-stemmed, horizontal layered branching
- Mid green lvs turn orange and red in fall
- Full sun
- Soil loamy, well-drained
- Border, specimen
- Reputed disease resistance (including anthracnose), & insect resistant

INVASIVE SPECIES CHECKED√

- Plants profiled in this Powerpoint presentation do not appear on the following invasive plant lists on January 15, 2012:

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