



MASTER GARDENER

COLORADO STATE UNIVERSITY
EXTENSION

CMG GardenNotes #413

Water Wise Landscape Design: Principles of Landscape Design

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The principles of landscape design include the elements of *unity*, *scale*, *balance*, *simplicity*, *variety*, *emphasis*, and *sequence* as they apply to *line*, *form*, *texture*, and *color*. These elements are interconnected.

Landscape design is a process of developing practical and pleasing outdoor living space. For additional information on the process, refer to *CMG GardenNotes* #411, **Water Wise Landscape Design Steps**.

***Unity* is the Quality of Oneness.**

Unity attracts and holds attention. It organizes view into orderly groups with emphasis. Unity starts with the ***story line*** developed in the *family analysis*, step 2, in the design process. For additional details on Family Analysis, refer to *CMG GardenNotes* #411, **Water Wise Landscape Design Steps**.



Figures 1 and 2.
Unity develops from the story line. Here in Jeff de Jong's garden a story line around "sacred space gardening" creates unity with the feeling of peace and tranquility.



***Line* Connects and Defines the Space, Creating Outdoor Rooms**

Lines are a powerful design element that define rooms and connect people to the landscape. For a professional touch, use sweeping bold lines and curves rather than small zigzags and small wavy curves. Lines develop through Step 3 in the design process, *With Lines, Delineate Softscape and Hardscape Area Creating Outdoor Room*. For additional details on Step 3, refer to *CMG GardenNotes #411, Water Wise Landscape Design Steps*.

Figure 3. Notice the strong use of "line" here in the Japanese Garden at Butchart Gardens, Victoria BC. The path (primary line) invites you into the garden. Secondary lines form the beds.



Figure 4. In this private garden, the "line" formed by the edge of the pond creates an amazing space as the plants reflect in the water. The line defines the space and pulls you into the landscape.



Form Includes the Three-Dimensional Mass.

Form is determined by the line, direction, and arrangement of branches and twigs. The resulting mass influences the scale. For unity, repeat the topography form in plant forms. [Figure 5]

- **Horizontal and spreading** forms emphasis the lateral extent and breath of space. They are comfortable because it corresponds with the natural direction of eye movement.
- **Rounded** forms are most common in plant materials. They allow for easy eye movement and create a pleasant undulation that leads itself to plant groupings.
- **Vase-shaped** trees define a comfortable “people space” beneath the canopy.
- **Weeping forms** lead the eye back to the ground. What is below the weeping form often becomes a focal point.
- **Pyramidal** forms direct the eyes upward, so use sparingly. Grouping pyramidals will soften the upward influence. They will look more natural in the surroundings with foliage to the ground.



Figure 5. Forms (left to right) columnar, oval, vase, weeping, pyramidal, rounded

Texture is Fine/Coarse, Heavy/Light, Thin/Dense, and Light/Shade.

Texture can be defined as the relationship between the foliage and twig size, and the mass of the plants. Closeup, texture comes from the size and shape of the leaves, the size of twigs, spacing of leaves and twigs, the colors and shading, the gloss or dullness of leaves. At a distance, texture comes from the entire mass effect of plants and the qualities of light and shadows. [Figure 6]

Figure 6. Texture changes with distance. Up close, texture comes from the size and shape of leaves and twigs, plus the coloring and shading. At a distance, it comes the mass and play of light.



Figure 7. Four season gardening is all about texture gardening. Without the summer color, texture becomes the primary design element.



Figure 8. Texture rules here in the Japanese Garden at Butchart Gardens, Victoria, BC. Notice how the fine texture created by the moss plays with the coarse texture of the tree trunks and lantern. In Japanese gardening, the lantern is a symbol that this is sacred space, leave your cares and worries behind.



Color Gives Greatest Appeal, and Evokes the Greatest Response.

How does color speak to you? What colors work for the landscape story line?

Color is powerful in creating mood and feeling. *Color therapy* is a popular topic in our rapid paced modern world. What moods and feeling do various color create for you? What colors work for the landscape story line? What moods and feeling do you want in the garden? Is it a room for relaxation and healing or a room for action activities? Examples of common color feelings include the following:

Red

Passion
Courage
Power
Wealth
Motivation
Fame

Yellow

Joy
Happiness
Communication
Inspiration
Sunshine
Optimism

Blue

Imagination
Calm
Serenity
Relaxation
Compassion
Reflection

Green

Harmony
Beginnings
Prosperity
Nature
Growth
Healing

Orange

Enthusiasm
Joy
Exuberance
Interaction
Fun
Captivation
Sex

Purple

Intuition
Devotion
Respect
Peace
Spirituality
Awareness
Deity
Royalty

White

Purity
Innocence
Faith
Benevolence
Honesty
Grace

Pink

Love
Sweetness
Uplifting
Happiness
Tenderness
Enticement

What color schemes work for the landscape story line? [Figure 9]

Cool colors

Less conspicuous
Restful
Recede
Suggest distance
Low scale

Warm colors

Conspicuous
Cheerful
Stimulating
Come forward
High scale

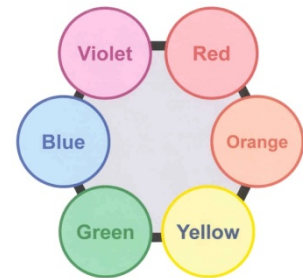


Figure 9. Color is the most powerful of the design elements. Choose colors carefully to create the mood desired in the story line.

Scale Evokes Emotional Connection and is Closely Related to Color.

Absolute scale relates to the comparative value of landscape elements to a fixed structure (house). [Figure 10]

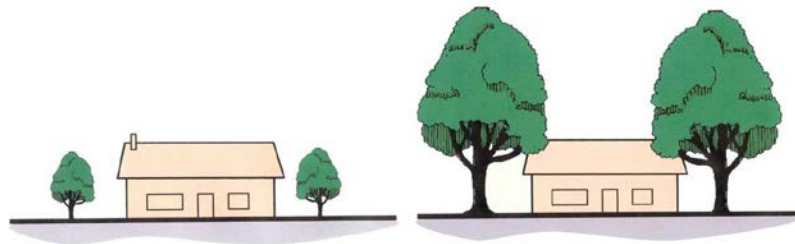
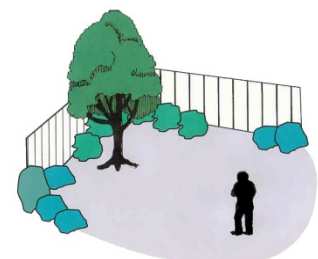


Figure 10. In absolute scale, the small trees on the left drawing give the feeling that the house is large. On the right drawing, the large trees give the feeling that the house is small. Both houses are the same size.

Relative scale relates to comparative sizes or “values” of objects in the landscape. Relative scale is very emotionally charged and closely linked to color. It may create a feeling of relaxation and peacefulness or one of energy and action. [Figures 11-13]

Figure 11. Relative scale compares the size or “value” of the landscape elements. Perception of tree size is based on the relative size of the person. Being emotionally charged, relative scale can create feelings of action or relaxation.



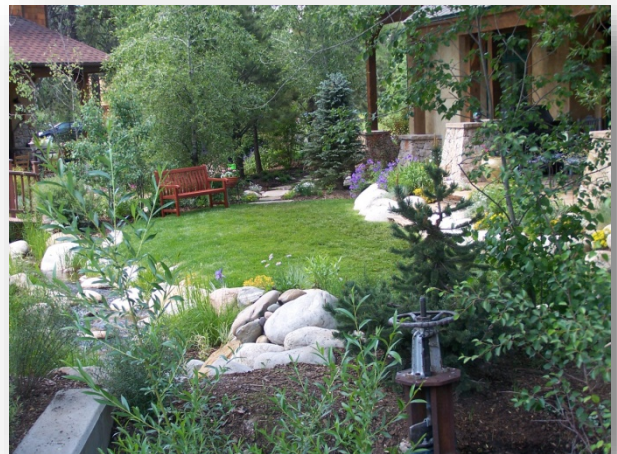
- **High scale** promotes action. It is used around large buildings and in large spaces to fill the space. Use of high scale in small spaces makes the space feel smaller. [Figure 12]

Figure 13. Here in the fountain area at Butchart Gardens, scale is high with the brightly colored flowers. The action feeling of high scale helps move people through.



- **Low scale** is relaxing and calming. It is used in the home landscape to give a feeling of peace and relaxation. [Figure 13]

Figure 13. In this private garden in Steamboat Springs, CO, the low scale creates a relaxing, renewing atmosphere.



***Balance* is Equilibrium on Left and Right Sides.**

Formal balance repeats the same left and right, giving stability, stateliness, and dignity. [Figures 14 and 16]

Figure 14. Formal Balance



Informal balance differs from left to right giving curiosity, movement, and feels alive. [Figures 15 and 17]

Figure 15. Informal Balance



Which gives the “feeling” desired by the story line and design?

Figure 16. The stately Italian Garden at Hatley Park, Victoria, BC, is a great example of formal balance.



Figure 17. The Herb Garden at Government House, Victoria, BC, is an excellent example of informal balance being relaxing and free flowing.



Simplicity and Variety

Simplicity and variety work together to balance each other. ***Simplicity*** is a degree of repetition rather than constant change, creating unity. ***Variety*** is diversity and contrast in form, texture, and color preventing monotony. [Figures 18-22]

- o For simplicity, repeat some plant materials in sweeps and groupings.
- o For variety, fill in with other plants.
- o Avoid creating a horticultural zoo (one of this, two of that)!
- o Zipper plantings (like red-white-red-white) lack simplicity and variety.

Figure 18. In this simple drawing, *simplicity* is gained with the shrub row repeating the same plant materials. *Variety* is added with the tree.



Figure 19. For simplicity, repeat some plant materials in sweeps and groupings. Fill in with other plants for variety.

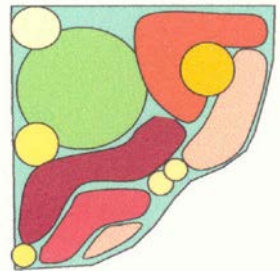


Figure 20. Simplicity is created by several hundred Hosta in this large bed. Variety is created by placing some in clusters of pots. - Innis Gardens, Columbus, Ohio



Figure 21. At Abkhazi Garden, Victoria, BC, simplicity is created with the row of purple heather and the lawn (the "Yangtze River"). Variety is created with an assortment of plant materials on the rocky hillside.



Figure 22. In this park, people enjoyed taking pictures of the various flowerbeds. However, they did not take pictures of this zipper planting (same elements repeated over and over again) finding it monotonous.



Emphasis is Dominance and Subordination of Elements.

The human mind looks for dominance and subordination in life. As we look at a landscape from any direction, we need to see dominance and subordination of various elements. If we do not find it, we withdraw from the landscape. Some gardens lack the dominant element. Others suffer with too many dominate elements screaming to be the focal point. [Figure 23-25]

Emphasis can be achieved through different sizes, bold shapes, groupings, and the unusual or unexpected. What is the focal point?

Figure 23. Emphasis is achieved with the tree being dominant and the shrub grouping being subordinate.



Figure 24. In this private garden, emphasis is added with the blooming Astelbe.



Figure 25. Ornamental grass often adds emphasis to a garden spot.

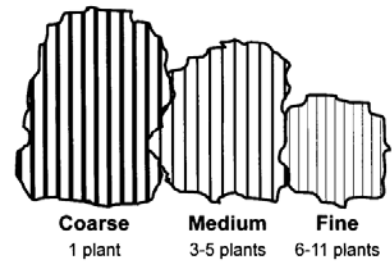


Sequence is the Change or Flow in Form, Color, Texture, and Size Giving Movement or Life.

Sequence with Texture

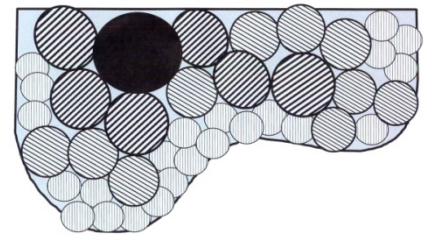
Change leaf size of adjacent different plants by at least one-half. Use proportionally larger numbers of fine textured plants. [Figure 26]

Figure 26. In texture sequence, change leaf size of adjacent different types of plants by at least one-half. Use more of the finer textured plant.



In a flower/shrub bed, use coarser texture, larger plants in the back; sequencing to finer textured, smaller plants in the front inside-curve. [Figure 27]

Figure 27. In texture sequence, place the fine texture plants in the inside curve and the coarse texture plants opposite. This is the way Mother Nature would do it. Look at the river. The sand bank is on the inside curve and the cliff opposite.



- o Texture and distance – Texture becomes finer with distance. In a distant corner, place finer textures in the corner, sequencing to coarser textures on the arms. [Figure 28]

Figure 28. Textures get finer with distance. Place the fine textured plants in the distant corner with coarser textured plants toward the viewer.



Sequence with Color

There are few basic rules on how much warm and cool colors to use. However, watch that the scale does not become too commanding. More is NOT better. As a rule-of-thumb, the designs needs 90% green to set off the 10% color.

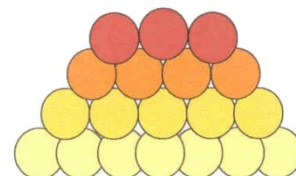
Darkest shades and the purest intensity dominate and should be used at the focal point. Using cool colors in contrast is more effective than sequences. Warm color work best in sequence.

Color Sequence

1. Decide what color(s) will be used.
2. Decide if light or dark will dominate. – The darker or more intense (pure) the color, the more it will show up and dominate the scene.

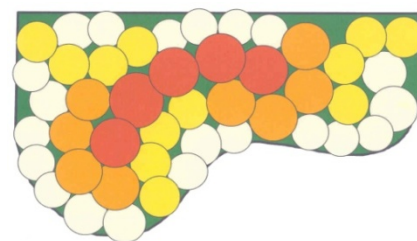
3. Calculate the number of plants of each color using this rule-of-thumb.
 - a. Establish the largest amount of dark/dominant color that will be used.
 - b. Select the next lighter shade and increase the number of plants by 1/3.
 - c. Select the next lighter shade and increase the number of plants by 1/3.
 - d. Continue the ratio to the lightest color. [Figure 29]

Figure 29. In color sequence, increase the number of plants by 1/3 as the design moves from the dominant color to subordinate colors.



- o Grouping for best effect – Kidney or crescent shaped groupings create a natural flowing design. [Figure 30]

Figure 30. In color sequence, crescent shapes of colors give a natural flow.



Color Contrasts

- o **Monochrome light/dark color contrasts** – Use 1/3 one shade and 2/3 the other shade. [Figure 31]
- o **Complementary color contrasts** – Use 1/3 one color and 2/3 the complementary color.

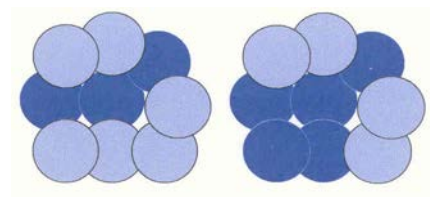


Figure 31. In color contrasts, use 2/3 of one color for dominance and 1/3 of the other color for subordination. Not half and half.

Create effective plant combinations by paring opposites

To create plant combinations with pizzazz, pair opposites. [Figures 32 to 35]

- | | |
|-----------------|-------------------|
| ○ Fine/Course | ○ Short/Tall |
| ○ Round/Upright | ○ Thugs/Dainty |
| ○ Small/Large | ○ Color contrasts |

Figure 32 to 35. Examples of great pairing.





Additional Information – CMG GardenNotes on Water Wise Landscape Design

- #410 References and Review Questions: Water Wise Landscape Design
- #411 Water Wise Landscape Design Steps
- #412 Water Wise Landscape Design: Selecting Turf Options
- #413 Water Wise Landscape Design: Principles of Landscape Design
- #414 Worksheet: Water Wise Landscape Design
- #415 Homework: Water Wise Landscape Design

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