



Principles of Landscape Design

Principles of Design

Design principles guide designers in organizing elements for a visually pleasing landscape. A harmonious composition can be achieved through the principles of proportion, order, repetition, and unity. All of the principles are related, and applying one principle helps achieve the others. Physical and psychological comfort are two important concepts in design that are achieved through use of these principles. People feel more psychologically comfortable in a landscape that has order and repetition. Organized landscapes with predictable patterns (signs of human care) are easier to “read” and tend to make people feel at ease. Psychological comfort is also affected by the sense of pleasure that a viewer perceives from a unified or harmonious landscape. Users feel more physically comfortable, function better, and feel more secure in a landscape with proportions compatible to human scale.



Principles of Design

- **Scale and Proportion** – actual size and relative size of an object
- **Balance** – equal visual weight and attraction. Symmetrical or asymmetrical
- **Rhythm** – movement of the eye across repeated features (sequenced repetition)
- **Unity** – linkage through the use of line, materials, plants. All the parts are consistent in character
- **Emphasis** – a prominent feature that attracts attention and invites further viewing

Proportion

Relative proportion is the size of an object in relation to other objects. Absolute proportion is the scale or size of an object. An important absolute scale in design is the human scale (size of the human body) because the size of other objects is considered relative to humans. Plant material, garden structures, and ornaments should be considered relative to human scale. Other important relative proportions include the size of the house, yard, and the area to be planted.

Scale and Proportion

- Scale- size or physical dimensions, creates and defines space
- Proportion- size relative to adjacent objects

The most important scale is relative to the human body

Scale and proportion is found in:

- plants
- hardscape
- voids (open areas)



Small garden 2006, pg 241

Proportion in plants

Proportion can be found in plant material relative to people (Figure 9), the surrounding plants, and the house. When all three are in proportion, the composition feels balanced and harmonious. A feeling of balance can also be achieved by having equal proportions of open space and planted space. Using markedly different plant sizes can help to achieve dominance (emphasis) through contrast with a large plant. Using plants that are similar in size can help to achieve rhythm through repetition of size.



Scale/Proportion of Plants -

the size/scale of individual plants or a mass of plants can vary greatly

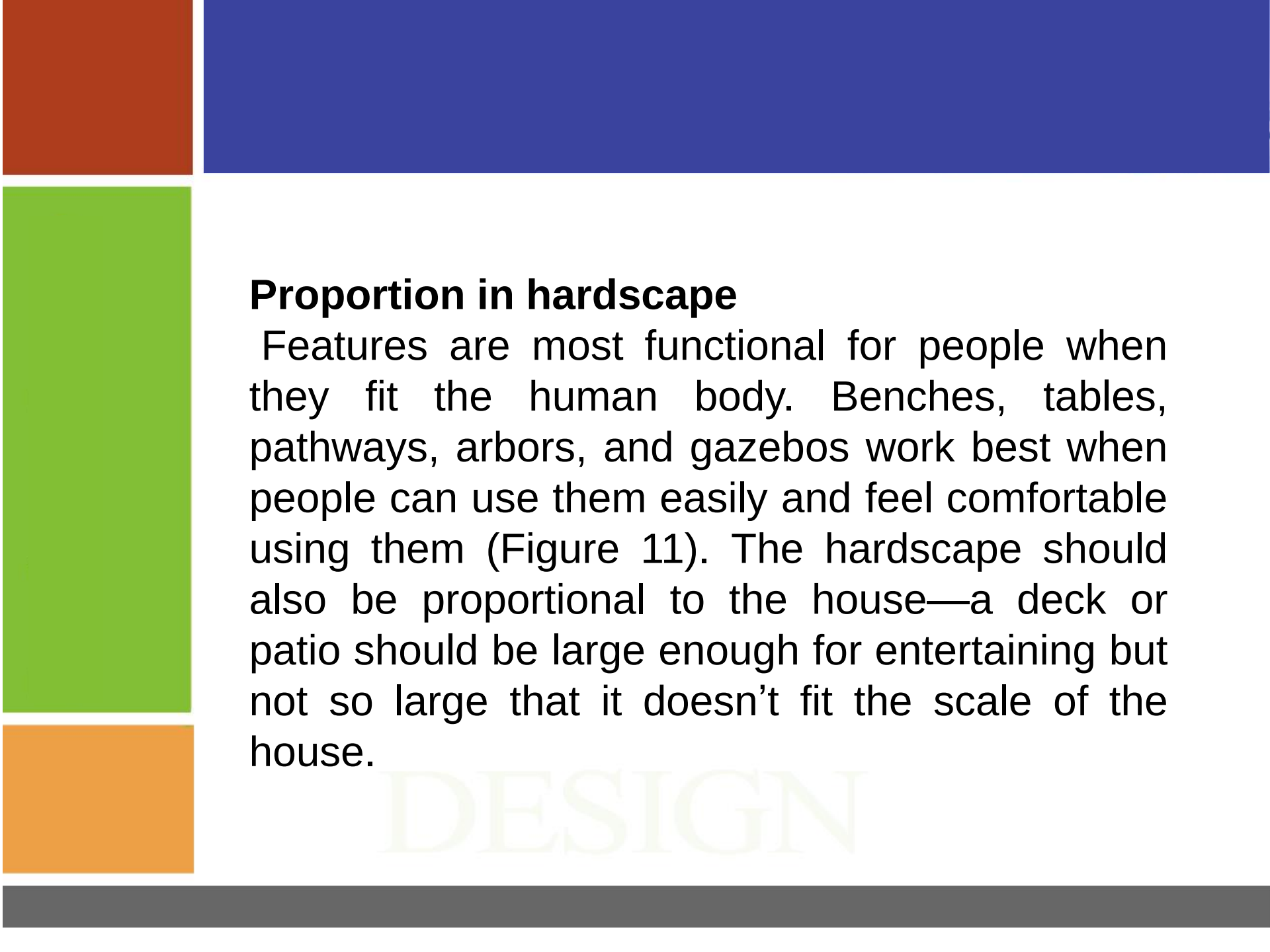


Garden Design, Sept/Oct, 2005, pg 36

Use like sizes to achieve repetition and unity



Use markedly different sizes to achieve contrast



Proportion in hardscape

Features are most functional for people when they fit the human body. Benches, tables, pathways, arbors, and gazebos work best when people can use them easily and feel comfortable using them (Figure 11). The hardscape should also be proportional to the house—a deck or patio should be large enough for entertaining but not so large that it doesn't fit the scale of the house.

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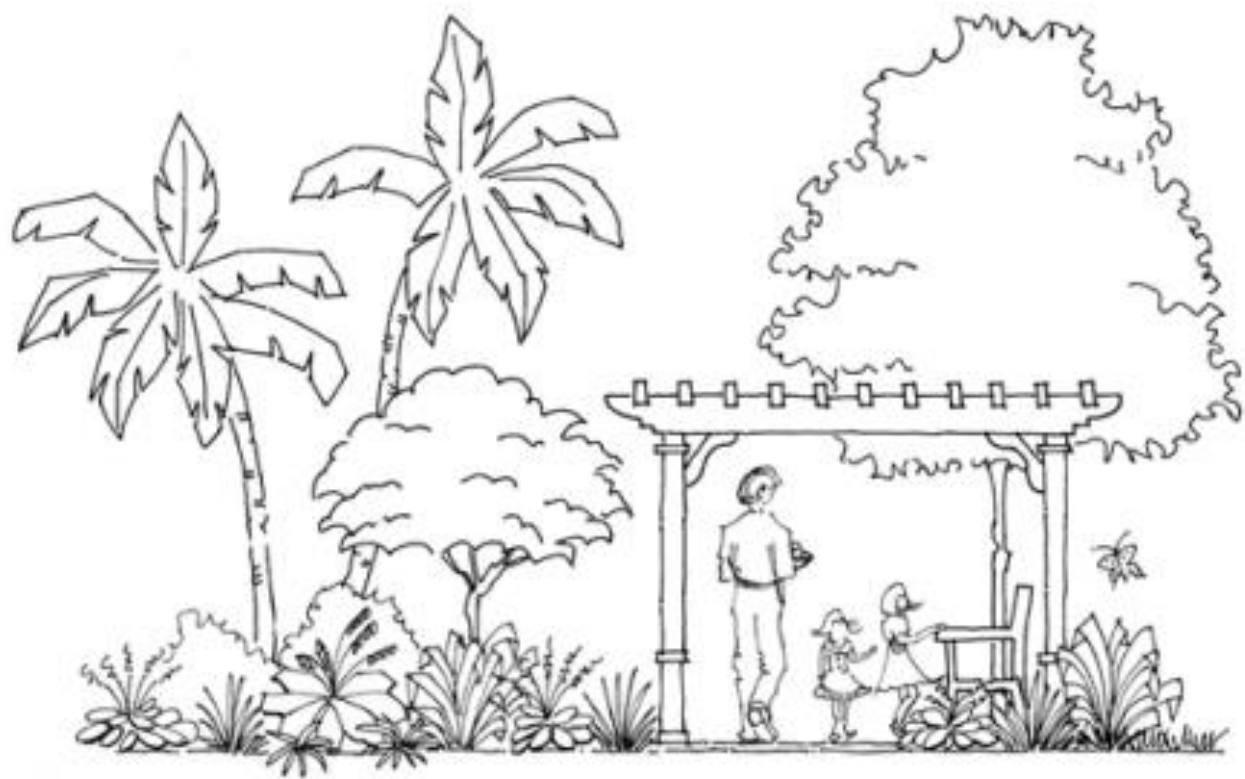


FIGURE 11. Proportion in plants and hardscape

Scale/Proportion of Hardscape -

should relate closely to the human body for function and psychological comfort



Small Garden 2006 pg 95



Garden Design, Nov/Dec, 2003, pg 52

Proportions in voids

Human scale is also important for psychological comfort in voids or open spaces. People feel more secure in smaller open areas, such as patios and terraces. An important concept of spatial comfort is enclosure. Most people feel at ease with some sort of overhead condition (Figure 11) that implies a ceiling. The enclosure does not have to be solid; in fact, an implied enclosure, such as tree branches, serves as a good psychological enclosure that still allows light and views of the sky.

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Scale/Proportion of Voids -

size and scale of the open areas between plants and structures is determined primarily by function and the overall size of the yard

In planted areas with masses and voids the proportion is the spatial relationship between the open space and the planted area



Landscaping, Better Homes and Gardens, 2002, pg 63

Order

Order generally refers to the spatial layout or organization of the design and is most often achieved through balance. Balance is the concept of equal visual attraction and weight, usually around a real or imaginary central axis. Form, color, size, and texture all affect balance. Balance can be symmetrical, asymmetrical, or perspective. Order can also be achieved by massing features or elements into distinct groups and arranging them around a central point.

Balance

- Balance – an equal mass - actual or visual- about a central axis

Shape, color, size and texture all affect visual mass and balance

Balance is either:

- Symmetrical- mirror image
- Asymmetrical- equal visual mass
- Perspective- relates to depth



Symmetrical balance

Symmetrical balance is achieved when the same objects (mirror images) are placed on either side of an axis. Figure 12 shows the same trees, plants, and structures on both sides of the axis. This type of balance is used in formal designs and is one of the oldest and most desired spatial organization concepts. This is because the mind naturally divides space by assuming a central axis and then seeks an even distribution of objects or mass (visual weight). Many historic gardens are organized using this concept.

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FIGURE 12. Symmetrical balance around an axis

Symmetrical Balance -

mirror image is more formal, easiest to achieve.

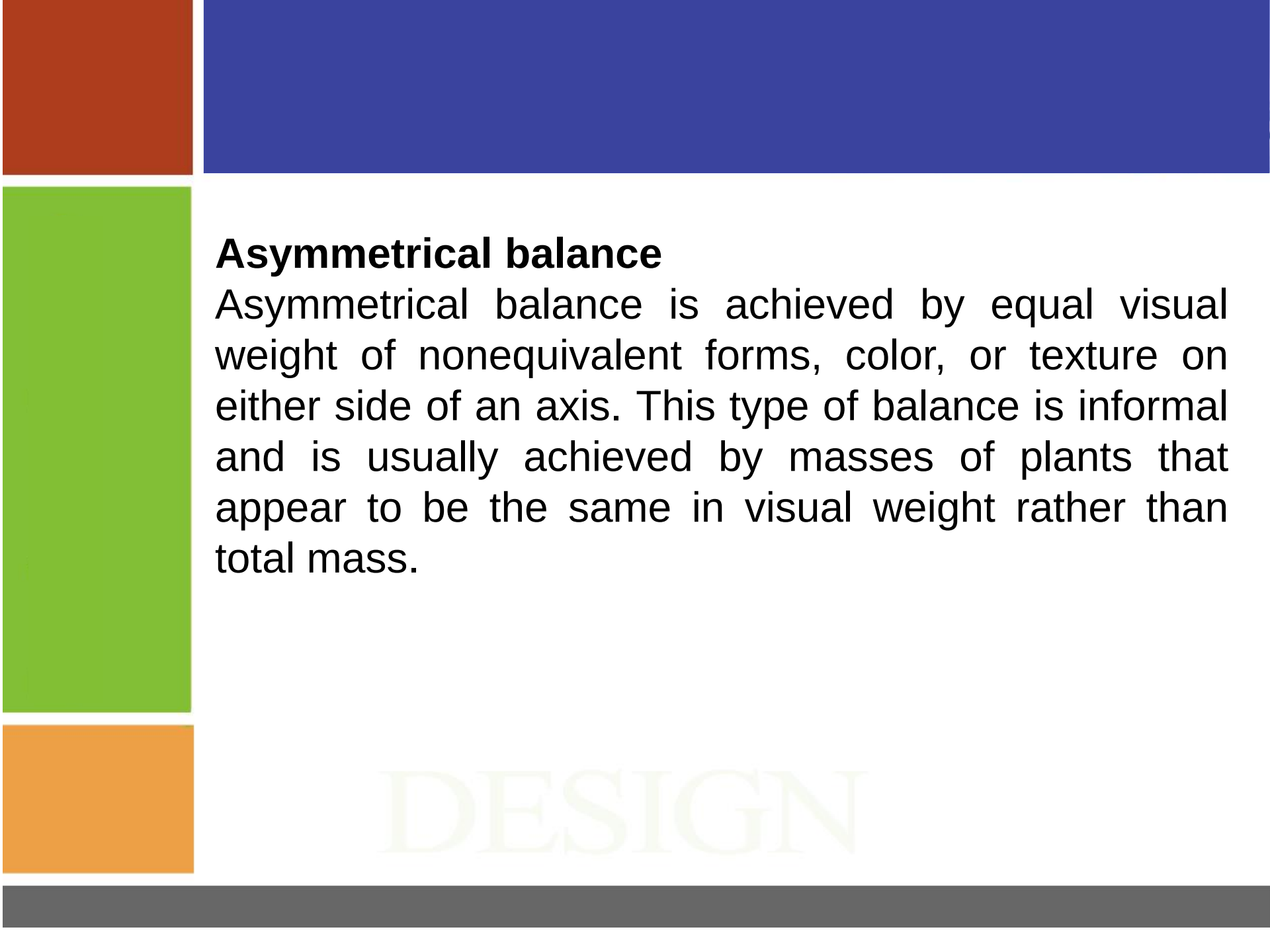


Garden Design, Nov 2007, pg 76



Small Garden, 2006, pg 183

The mind naturally assumes a central axis and seeks even distribution of objects or visual mass



Asymmetrical balance

Asymmetrical balance is achieved by equal visual weight of nonequivalent forms, color, or texture on either side of an axis. This type of balance is informal and is usually achieved by masses of plants that appear to be the same in visual weight rather than total mass.

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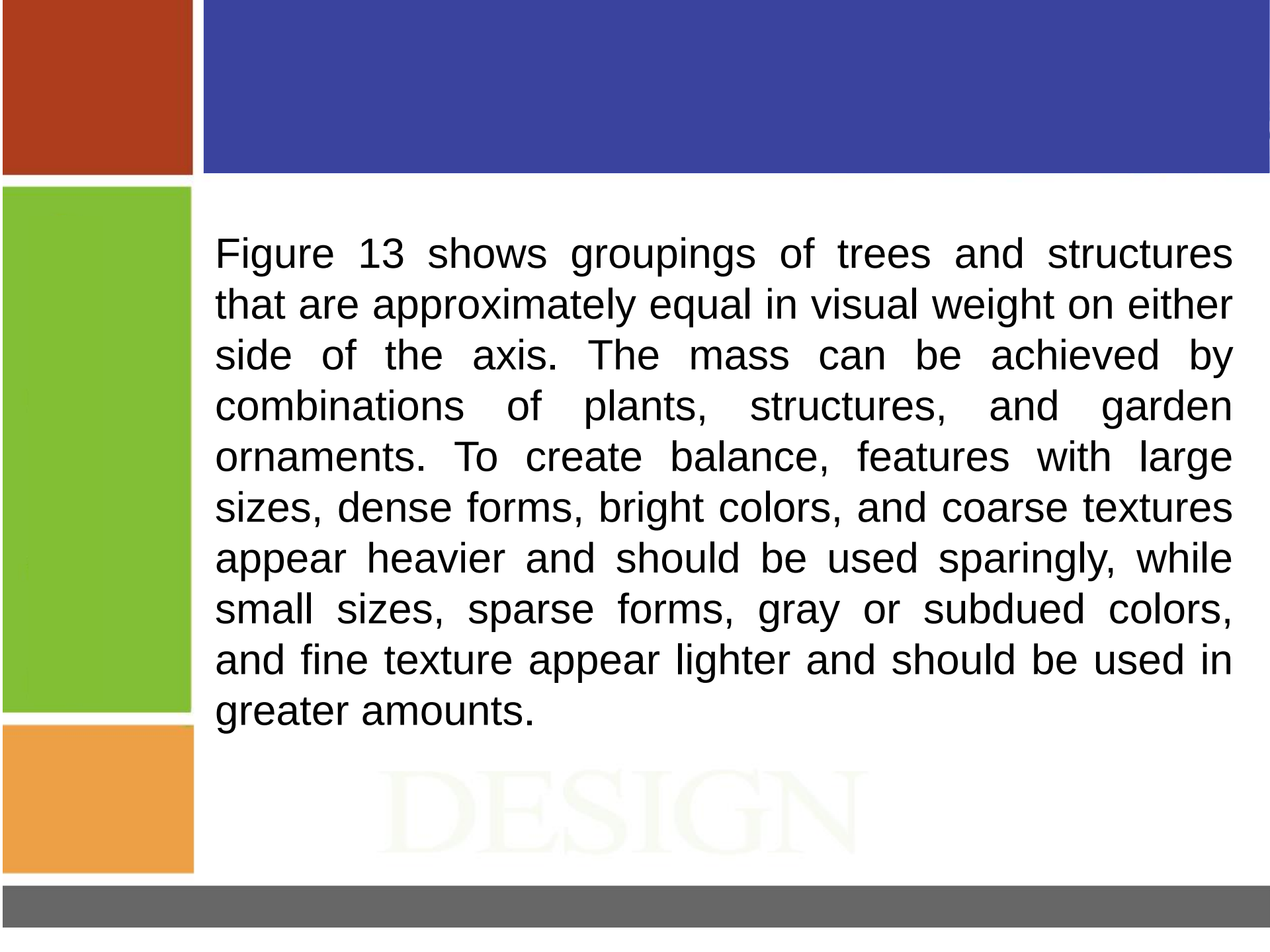


Figure 13 shows groupings of trees and structures that are approximately equal in visual weight on either side of the axis. The mass can be achieved by combinations of plants, structures, and garden ornaments. To create balance, features with large sizes, dense forms, bright colors, and coarse textures appear heavier and should be used sparingly, while small sizes, sparse forms, gray or subdued colors, and fine texture appear lighter and should be used in greater amounts.

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FIGURE 13. Asymmetrical balance around an axis



Asymmetrical Balance -

considered informal- balance by visual mass of non-equivalent forms, size, color, and texture



Outside the Not So Big House 2006

A small mass (grouping) of large sizes, dense forms, bright colors, or coarse textures (high visual weight)-

Can be balanced by a large mass of small sizes, sparse forms, grayed colors, or fine textures (low visual weight)

Perspective balance

Perspective balance is concerned with the balance of the foreground, midground, and background. When looking at a composition, the objects in front usually have greater visual weight because they are closer to the viewer. This can be balanced, if desired, by using larger objects, brighter colors, or coarse texture in the background. In most cases, either the foreground or background should be dominant.

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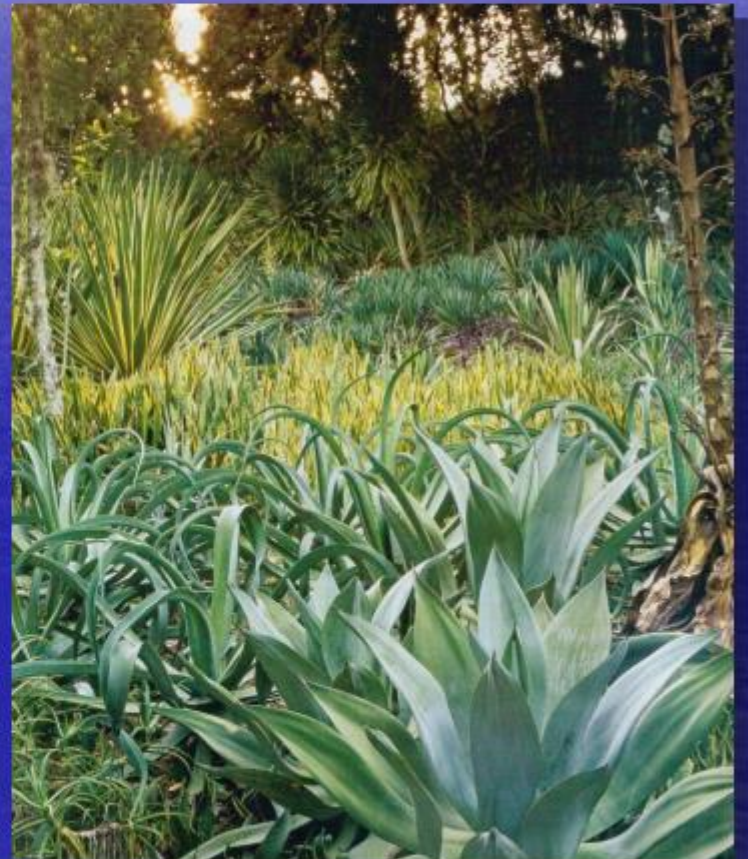
Perspective Balance -

includes the foreground, midground, and background

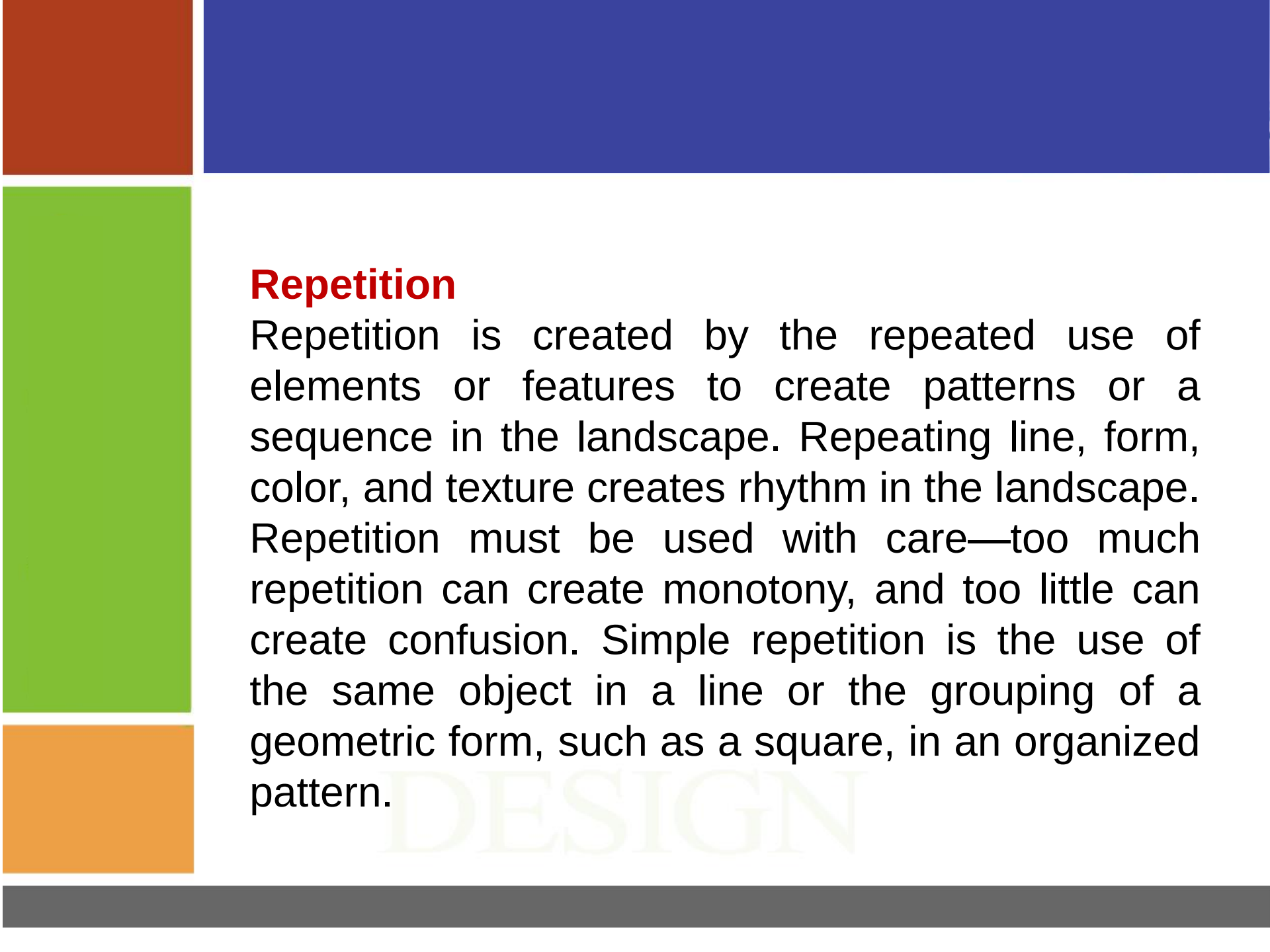


Home Landscaping, 2007, pg 79

Foreground and background elements have equal visual weight through massing and color



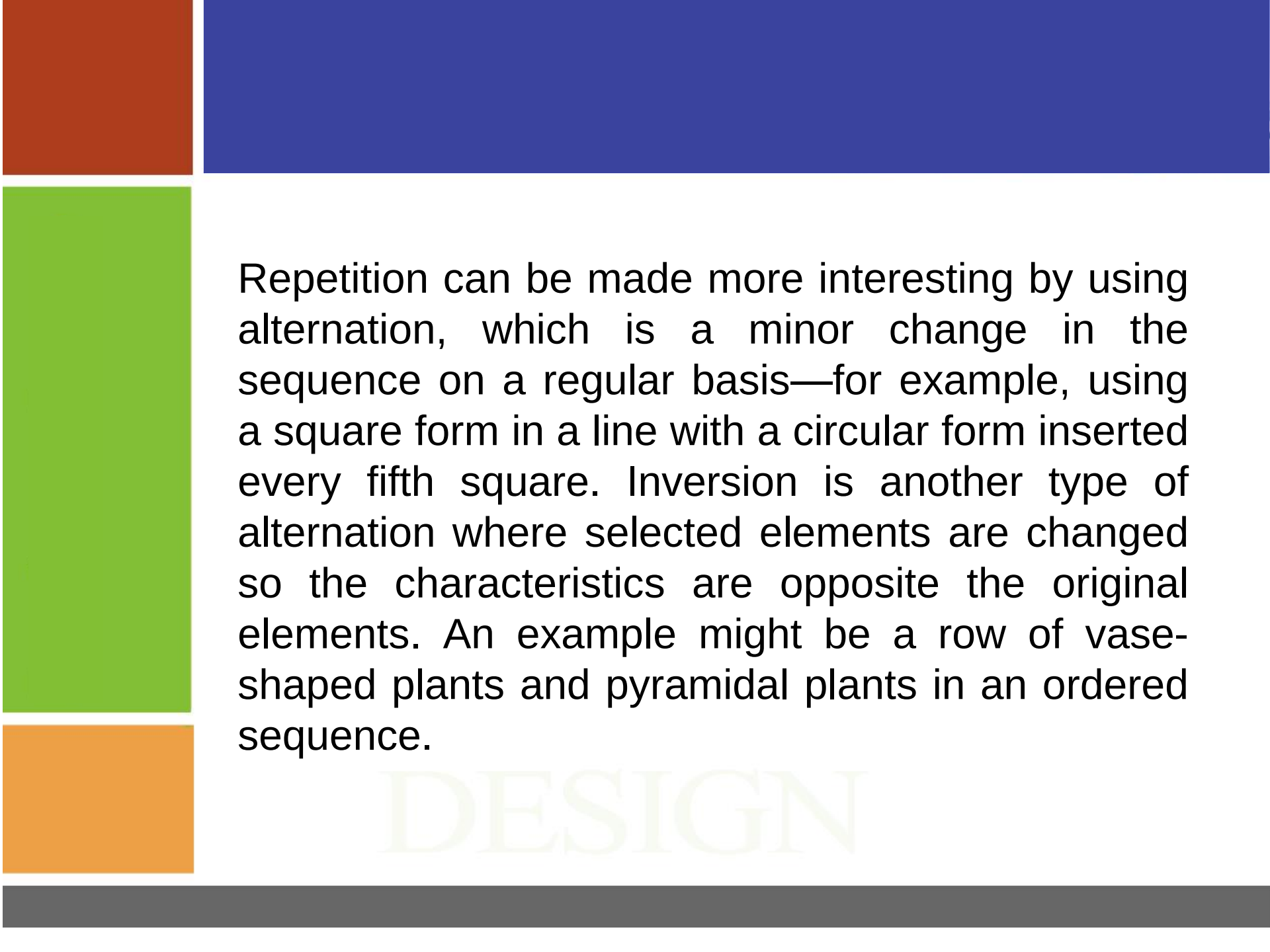
Garden Design, April 2005, pg 57



Repetition

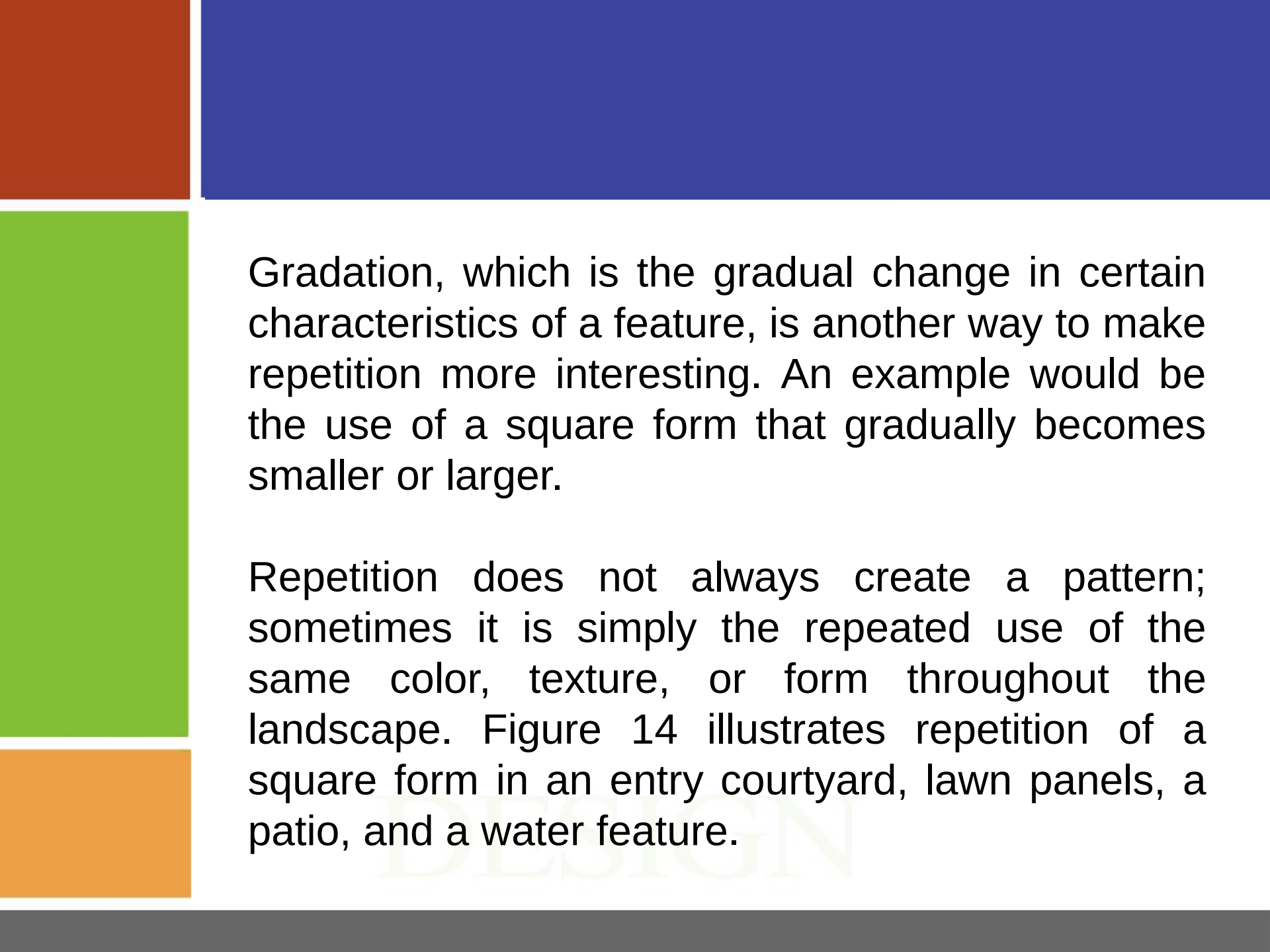
Repetition is created by the repeated use of elements or features to create patterns or a sequence in the landscape. Repeating line, form, color, and texture creates rhythm in the landscape. Repetition must be used with care—too much repetition can create monotony, and too little can create confusion. Simple repetition is the use of the same object in a line or the grouping of a geometric form, such as a square, in an organized pattern.

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Repetition can be made more interesting by using alternation, which is a minor change in the sequence on a regular basis—for example, using a square form in a line with a circular form inserted every fifth square. Inversion is another type of alternation where selected elements are changed so the characteristics are opposite the original elements. An example might be a row of vase-shaped plants and pyramidal plants in an ordered sequence.

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Gradation, which is the gradual change in certain characteristics of a feature, is another way to make repetition more interesting. An example would be the use of a square form that gradually becomes smaller or larger.

Repetition does not always create a pattern; sometimes it is simply the repeated use of the same color, texture, or form throughout the landscape. Figure 14 illustrates repetition of a square form in an entry courtyard, lawn panels, a patio, and a water feature.

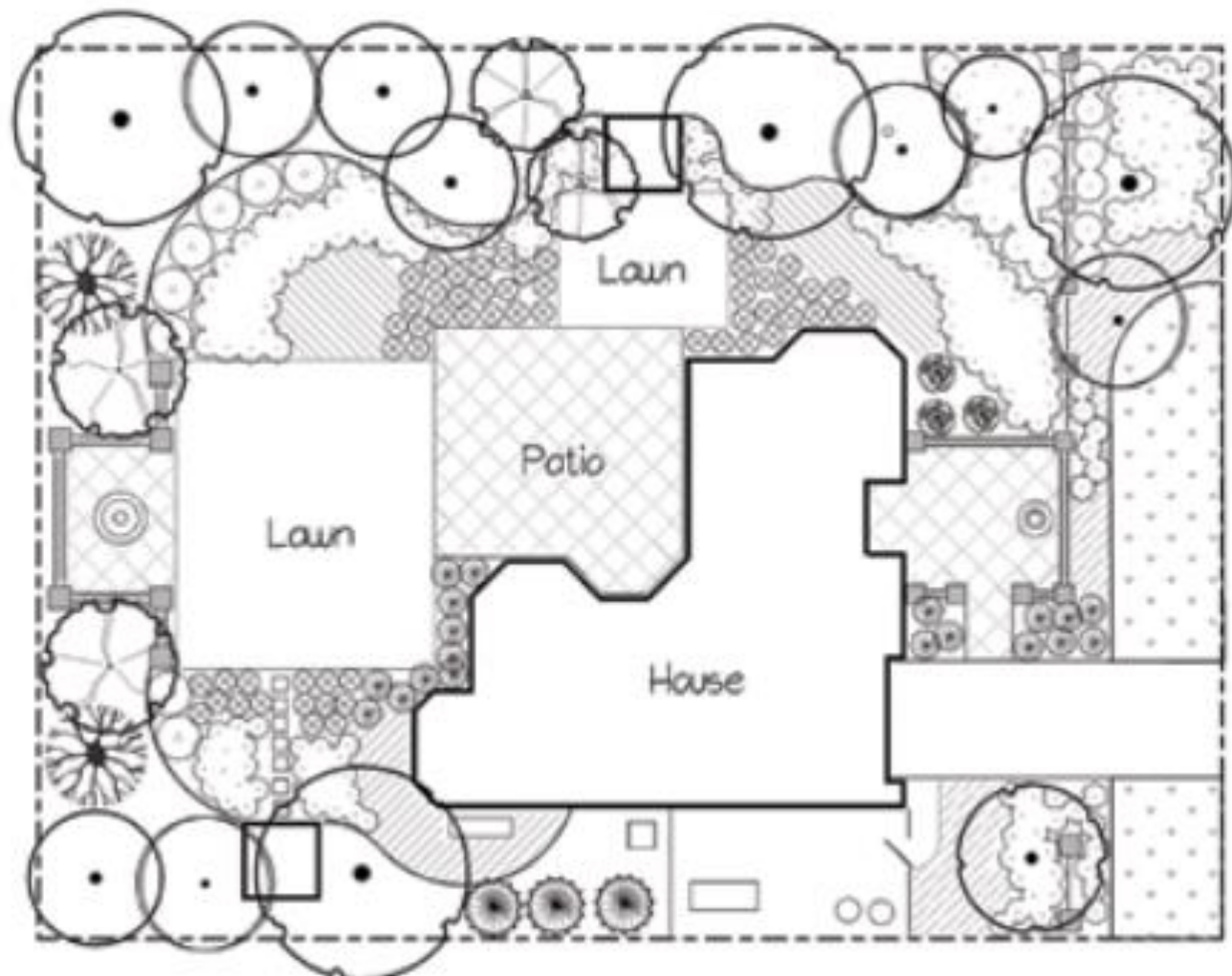
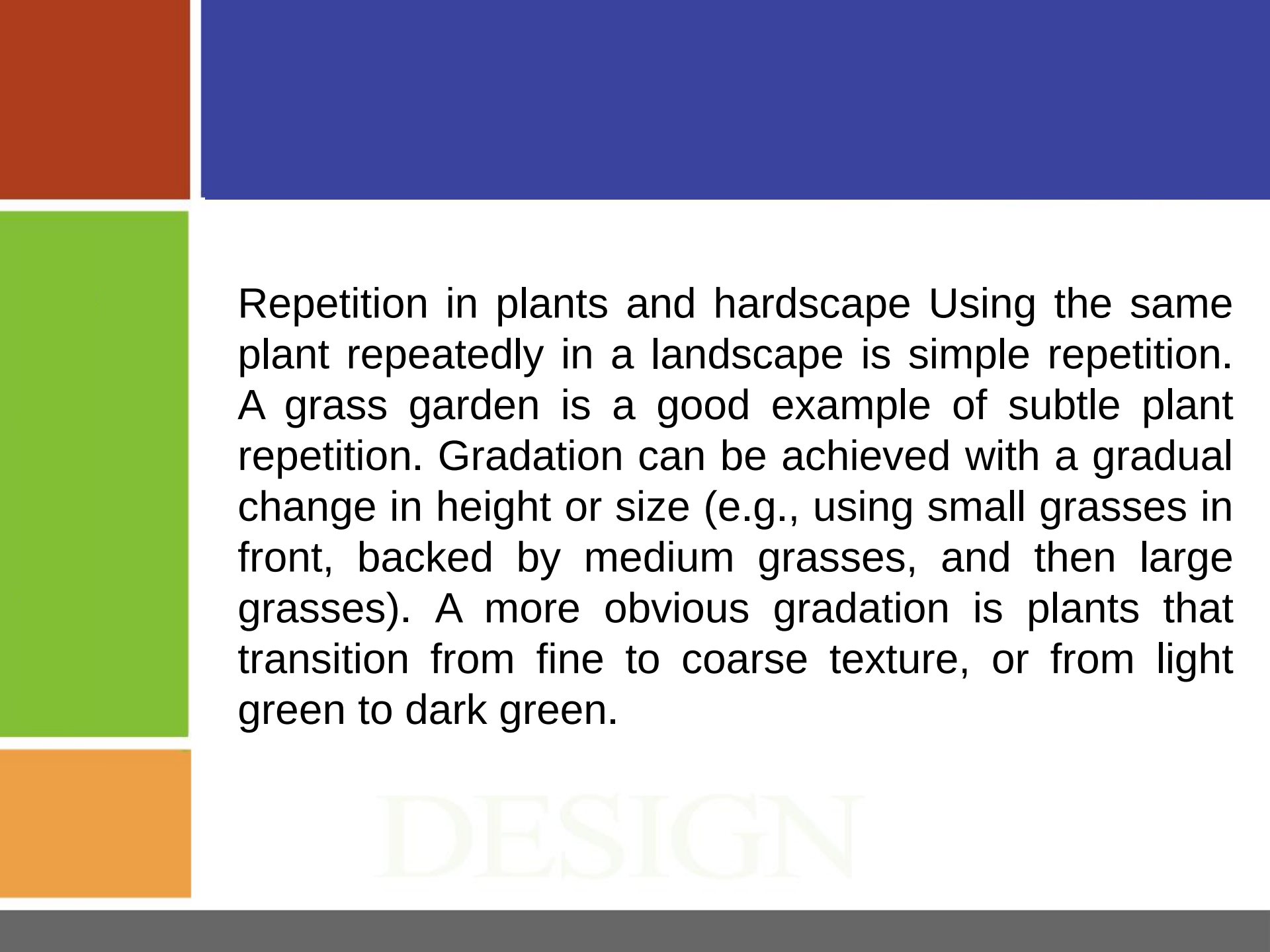


FIGURE 14. Repetition of square form



Repetition in plants and hardscape Using the same plant repeatedly in a landscape is simple repetition. A grass garden is a good example of subtle plant repetition. Gradation can be achieved with a gradual change in height or size (e.g., using small grasses in front, backed by medium grasses, and then large grasses). A more obvious gradation is plants that transition from fine to coarse texture, or from light green to dark green.

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The slide features a decorative border on the left side consisting of four colored squares: a red square at the top, a green square in the middle, and an orange square at the bottom, with a blue square at the top right.

Material can be used repeatedly throughout the yard for unity, but interest can be created by slightly varying the size, texture, or color of hardscape material. Repetition and pattern can be made most obvious in the hardscape because duplication is easiest with built materials that are manufactured to exact dimensions.

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Rhythm

- Repetition- repeated use of features to create pattern or sequence (sets up a rhythm)
- Alternation- alternating the sequence of features for more interest
- Gradation- gradual transition from one quality to another

Too much repetition creates monotony, too little creates confusion

Rhythm occurs in:

- plant material
- hardscape material





Rhythm in Plants -

repetition, alternation, or gradation of type of plant, size, texture, or color

Garden Design, June/July 2000, pg 53



Repetition-
of same
type of
plant



Gradation- slow or
gradual change from
one quality to the next

Garden Design April
2008, pg 66



Alternation- produces a
regular and anticipated
sequence

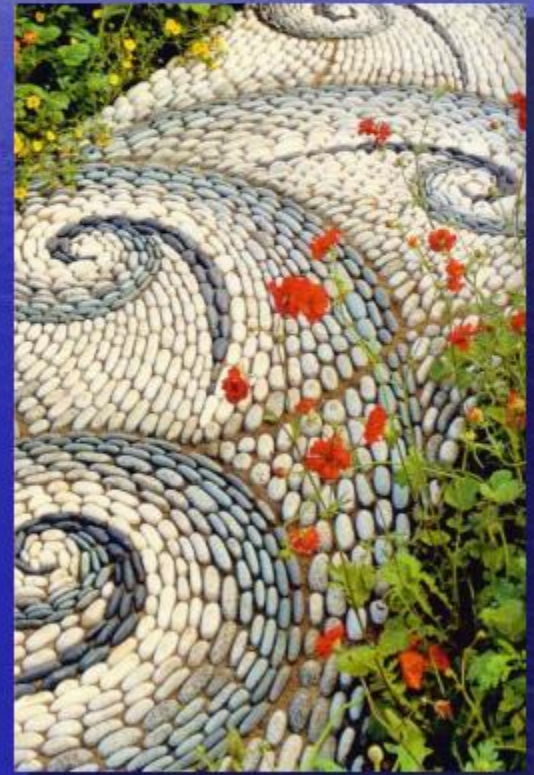
Home Landscaping, 2007, page 125

Rhythm in Hardscape - repetition, alternation, or gradation of form, material, size, texture, and/or color



Landscaping Your Home, Fine Gardening, 2001, pg 96

Repeated use of square and spiral forms

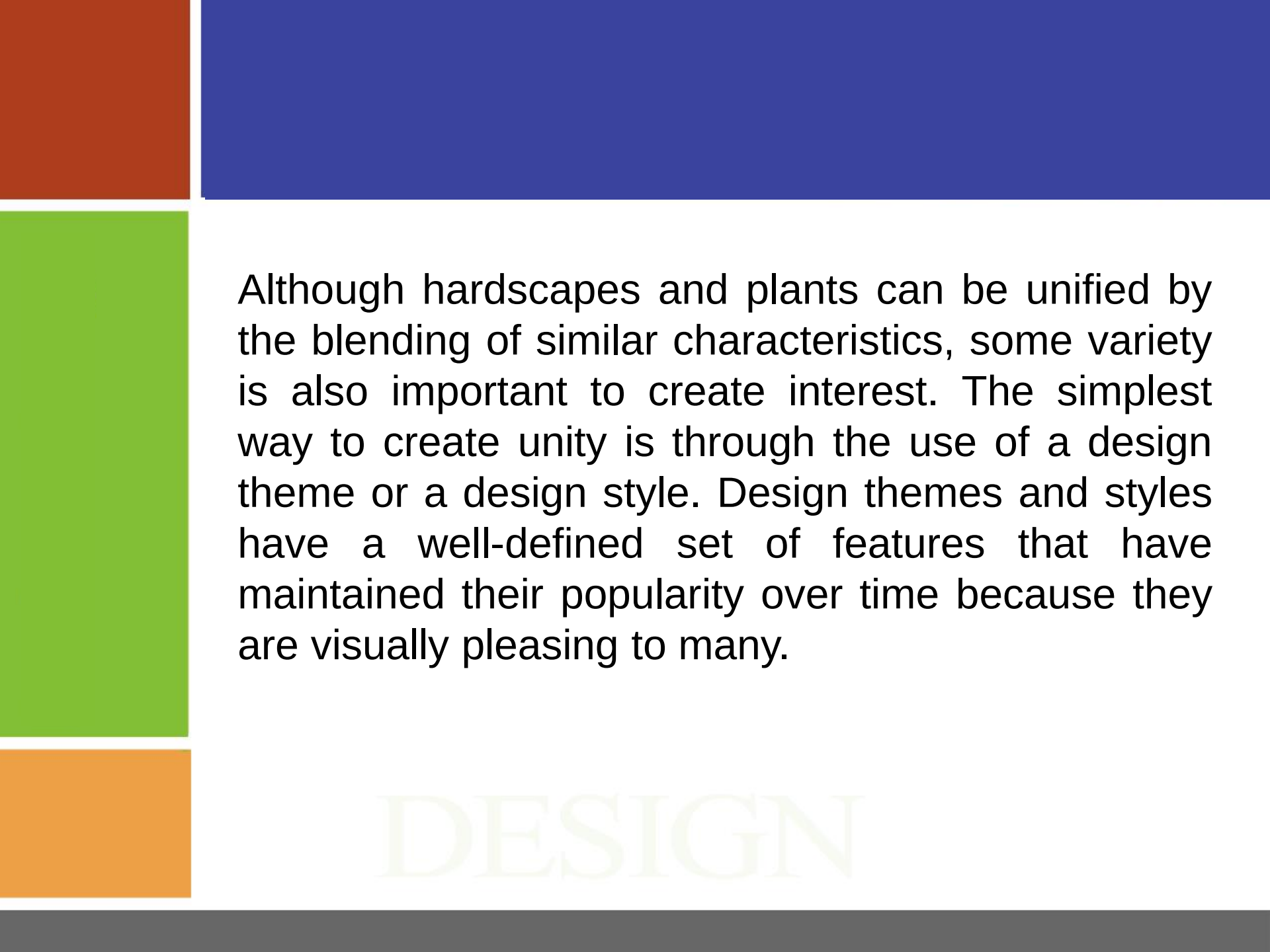


Small Garden, 2006, pg 194

Unity

Unity is achieved by linking elements and features to create a consistent character in the composition. Unity is sometimes referred to as harmony—the concept of everything fitting together. By comparison, scattered groupings of plants and unrelated garden ornaments are the opposite of unity. Unity is achieved by using dominance, interconnection, unity of three (described below), and simplicity to arrange colors, textures, and form.

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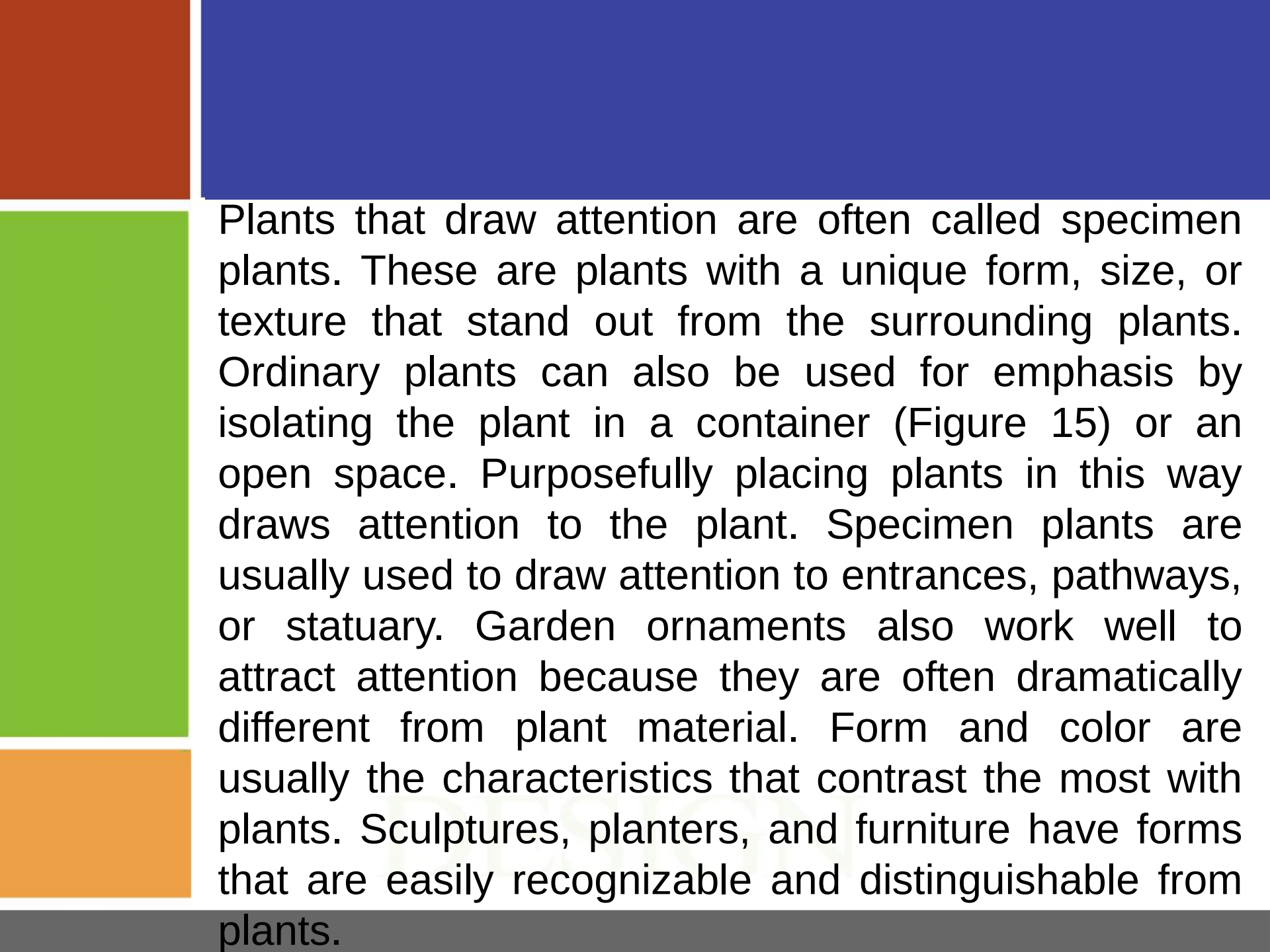
Although hardscapes and plants can be unified by the blending of similar characteristics, some variety is also important to create interest. The simplest way to create unity is through the use of a design theme or a design style. Design themes and styles have a well-defined set of features that have maintained their popularity over time because they are visually pleasing to many.

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Unity by dominance

Dominance or emphasis is the property of a plant or object that attracts and holds attention, making the object an important feature. The ability of an object to capture attention usually depends on contrast with adjacent objects. A typical example for a garden would be a very brightly colored ceramic pot among green foliage.

Dominant features that capture attention are called focal points. Focal points are used to draw attention to a particular location, move the eye around the space, or guide circulation. Emphasis is created through contrast in size, color, form, or texture.



Plants that draw attention are often called specimen plants. These are plants with a unique form, size, or texture that stand out from the surrounding plants. Ordinary plants can also be used for emphasis by isolating the plant in a container (Figure 15) or an open space. Purposefully placing plants in this way draws attention to the plant. Specimen plants are usually used to draw attention to entrances, pathways, or statuary. Garden ornaments also work well to attract attention because they are often dramatically different from plant material. Form and color are usually the characteristics that contrast the most with plants. Sculptures, planters, and furniture have forms that are easily recognizable and distinguishable from plants.

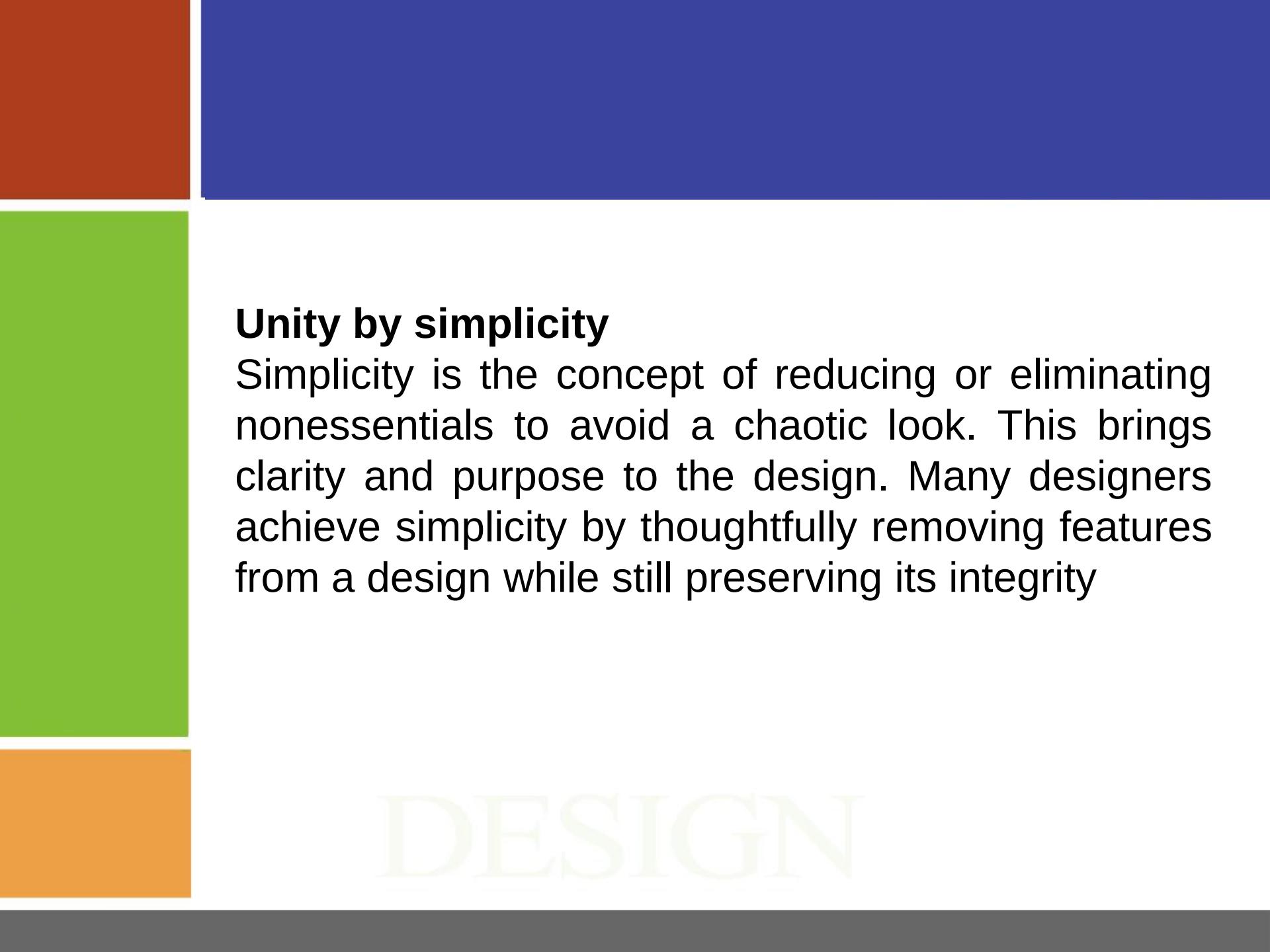


FIGURE 15. Emphasis by isolation of plant material in a container

Unity by interconnection

Interconnection, the concept of physical linkage (touching) of various features, is present in all designs. Although all features are linked to other features, the key is to make the linkage seamless so that the features blend or fit together. Hardscape is important to interconnection because it typically serves to organize and link spaces in the garden. Continuation of a line, such as a path, the edge of a built object, or a defined edge of a plant bed, can create unity through interconnection.

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Unity by simplicity

Simplicity is the concept of reducing or eliminating nonessentials to avoid a chaotic look. This brings clarity and purpose to the design. Many designers achieve simplicity by thoughtfully removing features from a design while still preserving its integrity

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Unity of three

Features that are grouped in threes, or in other groups of odd numbers, such as in groups of five or seven, feel more 10 balanced to the eye and give a stronger sense of unity. Odd numbers allow for staggered variations in height, such as small, medium, and large, that provide more interest. Odd numbers are often seen or perceived as a group and are not as easily split or visually divided as even numbers.

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Unity

- Unity- a consistent organizational theme, style or character where all features blend for connection and harmony

Results from similar characteristics (pattern, form, texture), an overall balance, and proper scale. Some variety is needed for interest.

Unity can be found in:

- Plant material
- Hardscape material





Unity with Plants -

aesthetic characteristics of plants are used to create unity



- analogous colors
- similar shapes
- related textures
- common plant groupings- tropical, woodland, grasses, aquatic, desert



Unity with Hardscape -

organizational framework for the garden, connects and defines spaces

Materials have similar characteristics



Landscaping Your Home, Fine Gardening 2001, pg 150

Garden Design, Nov/Dec 2003, pg 71



Continuation- a line, edge or surface treatment connects features in a composition



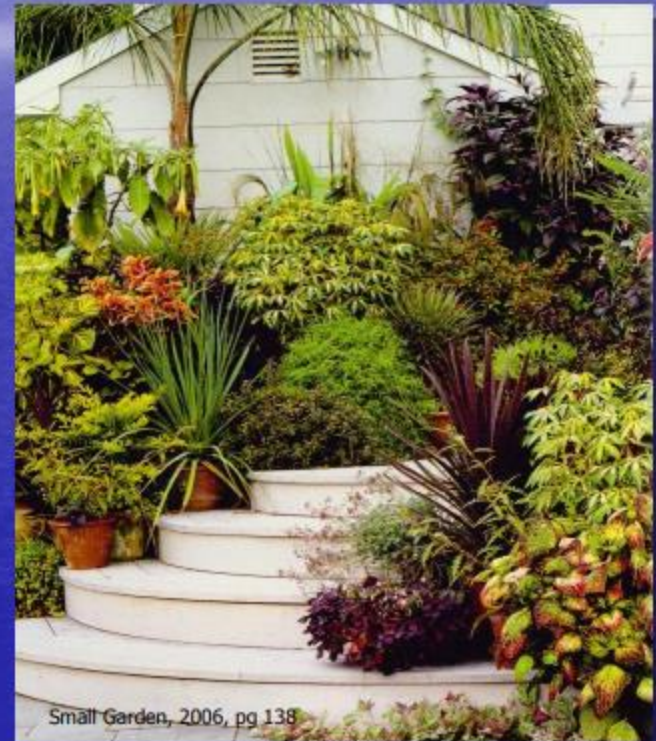
Unity and Variety-

unity must tie the composition together but also incorporate variety to prevent monotony

In a monochromatic color scheme use light to dark shades for variation



Garden Design, June/July 2000, pg 53



Small Garden, 2006, pg 138

Repeat plants with similar shapes for unity, but use different colors for variety

Emphasis

- Focal Point- a dominant feature that draws attention, used to guide views and circulation. Use sparingly to create interest

Contrast with other features in size, color, form, or texture

Emphasis occurs with:

- Specimen plants
- Garden ornaments



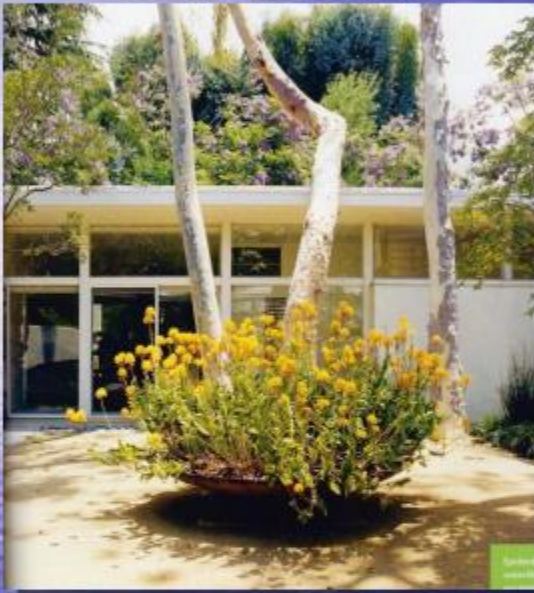
Small Garden, 2006, pg 163



Specimen Plants -

attract attention through contrast

Garden Design, Sep/Oct 2005, pg 51



Isolate individual plants- draw the eye by purposeful placement of plants

Garden Design, April 2005, pg 78



Draw attention to entrances, steps or statuary

Garden Design, June/July, pg 64



Dramatically contrast form, color, texture, or size



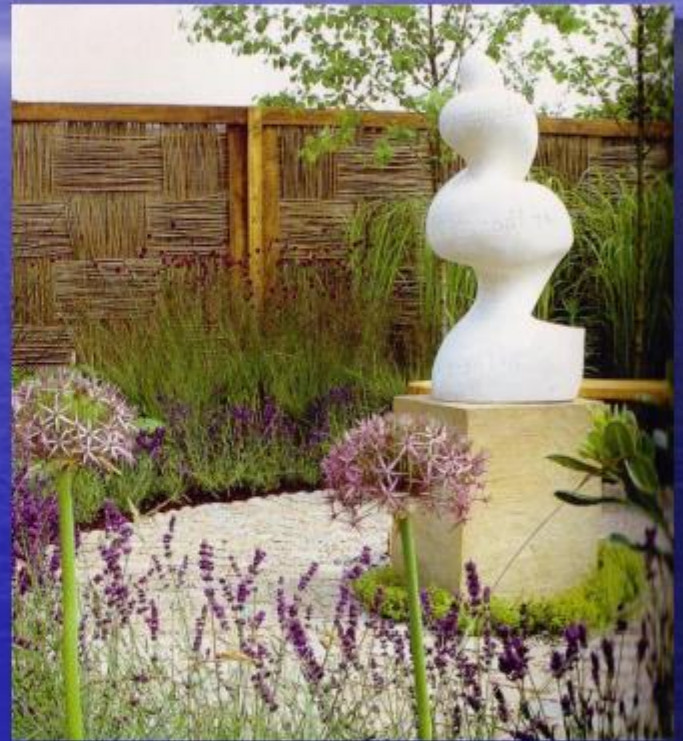
Garden Ornaments-

attract attention through contrast

Draw the eye by purposeful contrast to the soft plant material



Garden Design, Aug/Sept 2007, pg 55



Small Garden, 2006, pg 234

Dramatically contrast form, color, texture, or size

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