# Importance of Colours in Land Scaping 

('Dr. A. Nirmala)
Department of Horticulture, College of Agriculture, Hyderabad, Professor Jayasankar
Telangana State Agricultural University, Rajendranagar, Hyderabad
"Corresponding Author's email: nirmala.puli@gmail.com

Color is the most satisfying, but also the most difficult, aspect to work within the landscape. The first sense we use to receive information is vision, which is followed by the other senses. Plants beautify landscapes in addition to serving a functional purpose. A vibrant and unusual plant arrangement attracts attention and can direct people to a focus point. Plants, as a major design principle, can represent all of the art elements, which are characterised as form, line, shape, colour, texture, space, and value. When these aesthetic elements are merged, they begin to communicate design principles such as emphasis, balance, harmony, variety, movement, rhythm, proportion, and unity. Color is a powerful design element that may be used to draw attention and direct the human eye. Color may be a problem when utilised incorrectly due to its strength.

Characteristics of Color: Color has an immediate, primal visual appeal. As famous color authority Faber Birren once said, "Color is the one experience in life that requires no conscious struggle of the intellect to appreciate."Color theory is quite complicated, but the main point is that colour is a characteristic of light. This was proven by Sir Isaac Newton in the 17 th century when he put white light through a prism. The prism broke up white light into the familiar rainbow of hues. The term hue refers to the color's name. Hues include red, orange, purple, and green. Most frequently, these are grouped in what is known as a colour wheel. The colour wheel employs twelve colours that are classified into three groups.
Red, yellow, and blue are the primary colours. All other hues are created by combining these. Orange (red and yellow), green (yellow and blue), and purple are the three secondary hues (blue and red).

This is a colour wheel image. This colour philosophy was arguably best recognised in the garden through the work of Gertrude Jekyll. Color theories proposed by this 19th century garden designer in her perennial garden designs are still influencing gardens today.
Categories of Color-Wheel : Color theory in design is based on the colour wheel, which is a common circular graphic that depicts the relationship between all of the hues in the spectrum. The colour
 spectrum is frequently divided into four categories:

- Primary colors: reds, yellows, and blues
- Secondary colors: greens, violets (purples), and oranges
- Tertiary colors: Blends of the primary and secondary categories
- Neutral colors: White, grays, and silvers. Gray is an unusual color for blooms or berries Secondary colours are created by combining two basic colours in equal parts. Red and yellow produce orange, yellow and blue make green, while red and blue produce purple. The "tertiary colours" blends give another level of intricacy to the colour wheel. They are mixes
of primary and secondary colours that result in hues that are not wholly different, but have qualities of both:
- Yellow-green
- Blue-green
- Blue-violet
- Red-orange
- Orange yellow

Color Properties:Colors represent different things to different people, but one thing is certain: they may influence our emotions and psychology. For example, red is associated with danger in many colours (as found on our stop signs and lights). Yellow can represent both caution and holiness. Both of these colours are considered 'warm' and are among the most dominant hues in the landscape. Blue and green, on the other hand, are cold colours that can elicit more passive, relaxed sensations. Warm colours in the landscape tend to advance toward your eye as you look at them. They are one of the first things you notice.
Color Design: The context of a garden design is critical to its success. Color selection is heavily influenced by environmental factors, colour schemes prevalent in the neighbourhood, and the colour of your house or other site elements.Colors of arid, southwestern settings differ significantly from those in Mississippi's cold, green landscapes or the particularly regional colours of New Orleans architecture. Colors of hardscape materials such as paving, site furniture, fences, garages, and other items should be considered. Color is also a personal preference that represents the gardener's personality and desires.
Color Schemes: Certain colour combinations can have a calming effect. Monochromatic hues are made up of tints and shades of a single pure colour. A tint is a lighter version of the pure hue, whereas a shade is a darker version. Many beautiful gardens have been created using a monochromatic colour scheme. Crimson, varied pinks, deep red, or maroon are some examples.Analogous colours combine hues that are adjacent on the colour wheel. Red-violet, for example, is adjacent to violet, and blue is next to blue-green. These pairings are not difficult to achieve given the abundance of annual and perennial plant cultivars available. On the colour wheel, complementary hues are precisely opposite each other.
These are strong combos that look great in the landscape. Red against green, orange and blue, and yellow and violet are other examples. Polychromatic colour schemes pair every colour in the rainbow together. This can appear random, but it can also be playful.


Color Intensity: The brightness of a colour is referred to as its intensity. This is crucial to examine in the landscape since a person's perception of colour is influenced by their surroundings (or context). When numerous bright or powerful colours are used together, their intensity increases.When shades or tints are combined, the overall impact is softened and less powerful.
Color Design Principles: A design gains coherence when it has unity. Unity means that there is agreement among the pieces of a design and that they belong together. Choosing
plants with similar features as a foundation for your design might help you attain unity.Azaleas, for example, have medium-sized oval or rounded leaves and a rounded plant shape. By employing similar-looking plants as a background planting, such as Indian hawthorne or dwarf Burford holly, unity is established by using similar-looking plants.The opposite of unity, focal points are points of concentration that are distinct from the rest of the plants. A sculpture or fountain can serve as a focal point, as can a plant with a distinctive colour or shape, such as a red Japanese maple or weeping willow. Too many focal areas that compete with each other should be avoided.
Colors of Plants: Plants may feature colourful bark patterns, fruit, leaves, or fall colour in addition to flower colour. 'Natchez' crape myrtle, river birch, American beech, and black cherry are examples of trees with colourful or textured bark.Hollies, with their vibrant red, yellow, orange, or black fruits, make excellent winter accents. There are numerous cultivars of trees, shrubs, and herbaceous perennials with vibrantly coloured or variegated leaves, both during the growing season and in the fall.
Combining Colors: Using colour theory as a guide, you may select colours for your landscape that "get together" to achieve diverse effects. This can be accomplished in a variety of ways.
Cool Colors vs. Warm Colors: One popular method of categorising the colours of the spectrum is to divide them into warm and cool colours. This classification is frequently utilised in landscapes to impact mood and perception. Blue, purple, and green are termed "cool hues," and they have a relaxing and calming effect on observers. Blue and/or purple flowers are so logical selections for a meditation garden. Red, yellow, and orange are termed "warm hues" because they stimulate and energise the viewer. Warm and cold colours can be utilised for a variety of purposes in addition to influencing mood.
Combining warm and cold colours in a small yard can alter the illusion of depth. In the foreground, place flowers in warm colours. Plant flowers in cool hues behind them, beginning with deeper colours (such as purple) and progressing to lighter shades. This will give the illusion of depth. You may also achieve this effect by placing larger plant material in the foreground and then gradually decreasing the size of your plants as you work your way in deeper.
Contrast and Unit : Another example of colour theory in action is the employment of colour to create unity or contrast. Landscapers may stick to warm or cool hues in order to provide harmony, whether inside a single planting bed or throughout the yard. In the latter situation, various areas of the yard can be linked together to make a unified whole. When two colours are chosen that are absolutely opposite each other on the colour wheel, an unusual sort of unity develops. You might anticipate such hues to be perceived as clashing, but in truth, these combos give viewers a reassuring and "correct" feeling.
When colour combinations with no visible relationship on the colour wheel are utilised, the opposing impact can be unsettling, and the pairing is frequently referred to as clashing. However, there may be times when you simply love two colours and wish to employ them in your garden.In such cases, the tertiary hues can act as transitional colours. For example, if you want to utilise reds and violets in your garden since they are preferred colours, a plant or flower with a red-violet colour might assist bridge the gap between the two. The addition of the third plant colour in this case makes the difference between a slightly jarring impact and a smoother, more harmonic ensemble.
Using Neutrals: Neutral colours can also be utilised to diminish the impact of vibrant colour schemes or to stand alone in a monochromatic scheme. True blacks are uncommon in gardens and landscapes, but all-white gardens composed of various shades of whites and creams are
occasionally employed in so-called moon gardens, which are intended to be appreciated at night.
Flowers for Red Blooms: Red Tulips, Stewartstonian Azalea, Red Coleus (Foliage), Red Salvia, Castor Bean, Red Amaranth and Virginia Creeper (Foliage)
Flowers for Yellow Blooms: Yellow Daffodils, Forsythia, Marsh Marigolds, Yellow Iris, Stella d'Oro, Yellow Yarrow, Black-Eyed Susan, Sunflower and Goldenrod
Flowers for Blue Blooms: Blue Scilla, Grape Hyacinth, Cornflower, Bluebeard and Blue iris
Flowers for Orange Blooms: Crocosmia, Orange Canna, Orange Zinnia, Trumpet Vine, Orange Impatiens, Orange Nasturtium and Bittersweet Berries
Flowers for Purple Blooms: Rose Campion, Annual Purple Lobelia, Purple Verbena, Jackman Clematis, Perennial Purple Lobelia (Lobelia x speciosa 'Grape Knee Hi') and Heliotrope, Purple Iris
Flowers for White Blooms: White Daffodil, Star Magnolia, Callery Pear, Mountain Laurel, Queen Anne's Lace, White Cleome (often pink and white together on the same flower), White Allium and Autumn Clematis
Flowers for "Black" Blooms or Dark Foliage: BlackRose, Castor Bean, Plants for Silver Foliage, Dead Nettle, Silver Mound Artemisia, Silver King Artemisia, Lamb's Ears and Dusty Miller
Flowers for Pink Blooms: Pink Hyacinth, Weeping Higan Cherry, Mandevilla, Pink Cosmos and Tall Pink Garden Phlox
Flowers for Lavender Blooms : Lavender Crocus, Lavender Delphinium, Lavender Rose of Sharon and False Dragon Head
Using Foliage Color: Plants are used for their foliage as well as their blossom colour. Many plants have more appealing leaves (or foliage) than blooms. Most people think of foliage as "green," but there are many different colours and numerous plants with leaves that have various colours on a single leaf. These are known as variegated leaves.
Some variegated leaves have colour stripes (typically white, cream, or yellow and green); others have colour patches or blotches, such as white, cream, or yellow and green, pink, purple, and green, or yellow, orange, red, copper, and green.
Using Evergreen vs. Deciduous Plants: Color impacts of evergreen versus deciduous plants must also be considered. Because these plants are green all year, evergreen foliage provides constant colour in a landscape. Deciduous plants lose their leaves in the winter, but their bark colour and branch structure can provide considerable winter appeal.Some plants keep their old flower heads or beautiful berries throughout the winter. For the winter, many ornamental grasses turn a lovely $\tan$ or gold hue. These characteristics can be used to create winter plant combinations with subtly appealing colour schemes.

## Conclusion

Color is not the most significant consideration in an overall landscape. Color has a fundamental appeal to people and can be exploited by landscape designers to elicit strong emotional responses. Colors can generate feelings of tranquilly and quiet, as well as excitement and vitality. They can convey coolness or warmth, lightness or darkness. Plant colours will seem differently to the human eye based on the colours displayed by neighbouring plants, buildings, walls, and other nearby structures. Color can be used to accentuate a design and provide a focal point. Color enhances the structure and framework of the landscape and can highlight a region by using colour repetition to create unity, visual balance, and harmony.

## References

1. Matthew Chappell, Brad Davis, Bodie Pennisi and Merritt Sullivan, Land Scape Basics: Colour Theory. 2014.
