

ARE YOU AN UNDISCOVERED INTERIOR DESIGNER?

PART 3

Color & Lighting

interiordezine.com



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Color

This is a topic that the Interior Designer and Decorator must know inside out. It is a core subject. There can be no shortcuts here and as such our color website on this subject is very extensive. Interestingly color is so important that there have been many systems developed to help create color schemes that work however the best color consultants have “the eye” and imagination to be able to apply different pallets to different clients. One size does not fit all and having seen many designers stick to their tried and true scheme because a new client loved the last scheme they did is Ok but leads to a very mundane ability. You will need to build an understanding of how colors work together to create successful schemes. There are numerous factors that influence your decisions and understanding most of the points below will set you on your way.



- What color is and why it affects us so much. The personal side of Color, showing you colors and their meanings, how they can be interpreted and used to evoke mood.
- Basic color theory and the different systems. [free color ecourse](#)
- The color wheel and [how to use it](#).
- How to use colors to enhance a plain room. [get color tips](#)
- How color gives the appearance of depth, distance, definition, of hiding things and opposing contrasts.
- How color is merely a wavelength in light and the way light actually works

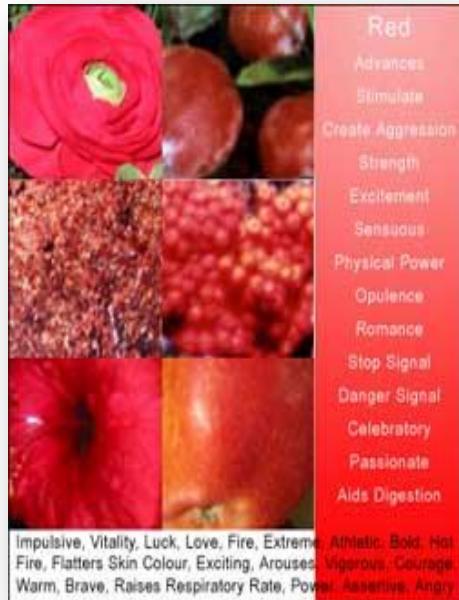
Color Meanings

The following graphics represent the basic groups of colors in the spectrum and their properties and effects on mood that each wavelength can have. Click through to learn in depth information for that color.

Red

[Red Color Meanings](#)

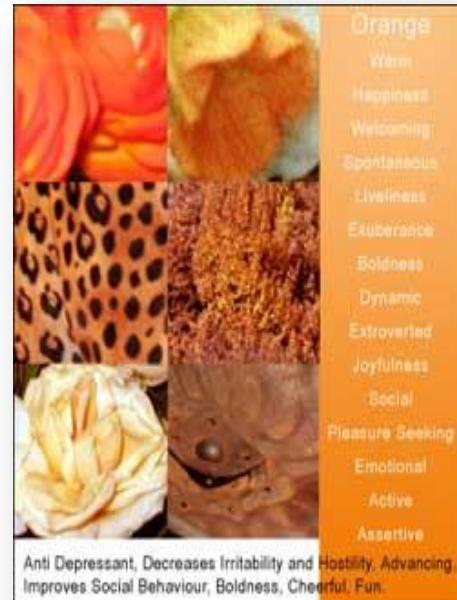
[Red Color Schemes](#)



Orange

[Orange Color Meanings](#)

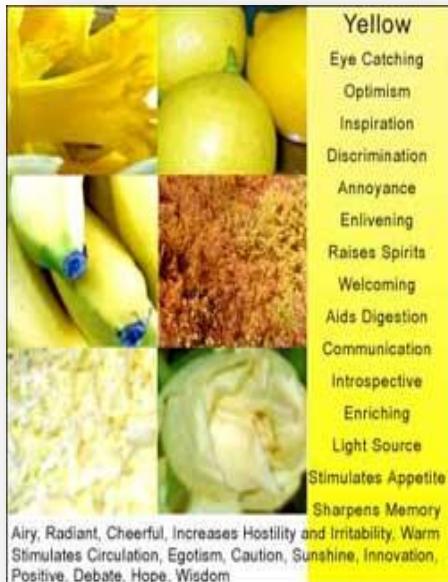
[Orange Color Schemes](#)



Yellow

[Yellow Color Meanings](#)

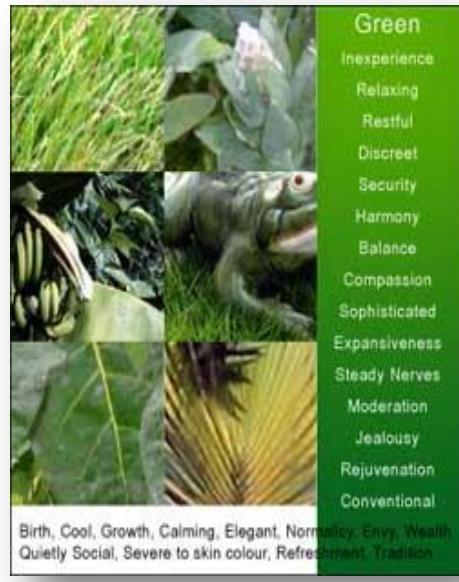
[Yellow Color Schemes](#)



Green

[Green Color Meanings](#)

[Green Color Schemes](#)



Purple

[Purple Color Meanings](#)

[Purple Color Schemes](#)



White

[White Color Meanings](#)



Blue

[Blue Color Meanings](#)

[Blue Color Schemes](#)

[Blue and White Color Schemes](#)

[Blue and Yellow Color Schemes](#)



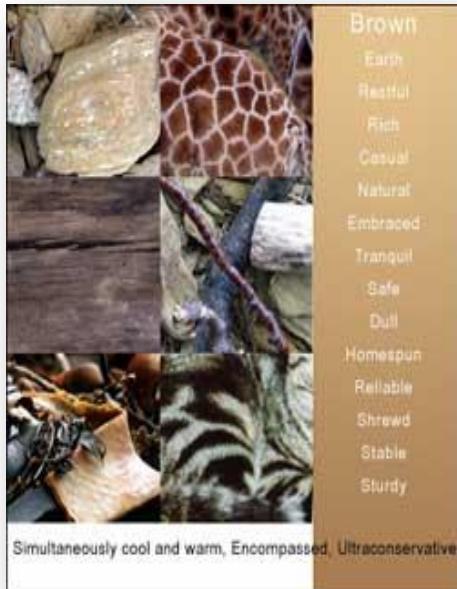
Gray

[Gray Color Meanings](#)



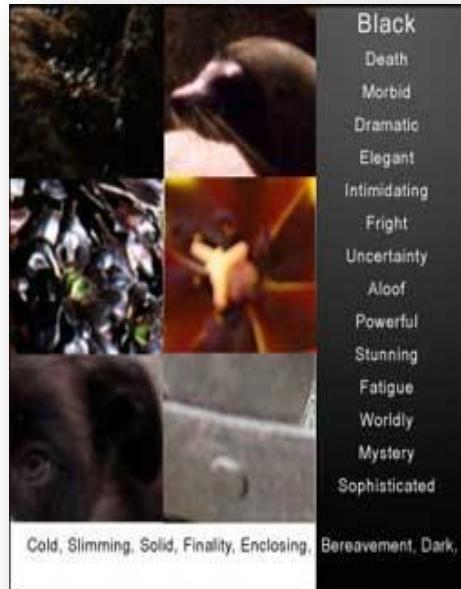
Brown

[Brown Color Meanings](#)



Black

[Black Color Meanings](#)



Things to think about when using color

Orange in a classroom creates a cheerful, sociable environment with minimal hostility and irritation. Dull, white, brown and black in a classroom is not stimulating or productive; the positive classroom colors are yellow, yellow green, orange and light blue.

Some effects of color on workplace performance; people will tend to spend less time in an area that is red than one that is blue, therefore red partitions in the locker rooms and WC's could stop staff lingering in these spaces.

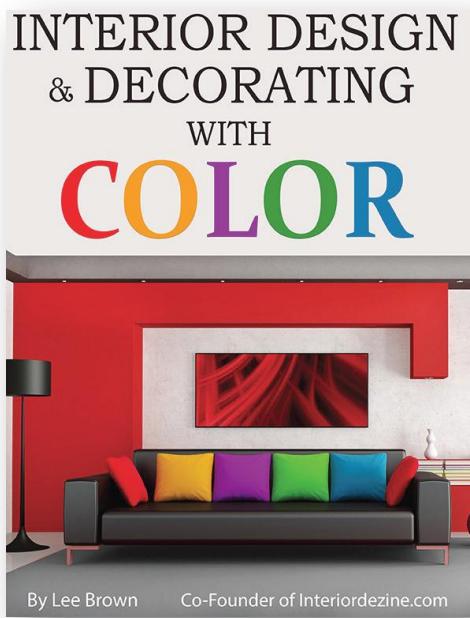
Changing the color of the walls in a cold workplace from blue to peach will stop workers complaining about the temperature and save the employer from having to increase the heating, therefore saving on electricity bills.

Green is a good color to use backstage for actors, as it is calming and meant to ease their nerves before their performance.

Red flatters the skin so is an ideal background color to use in rooms that are used for social functions.

Color ebook and Free Color eCourse

If you are interested in this topic, further reading and a comprehensive downloadable eBook is available from interiordezine.com, follow the link for more information. We also have a free color ecourse on the website that is sent out to you via email. [Free Color Ecourse](#)



Further free information on color

[Home Color](#)

[Color Articles](#)

[Free Color Ecouse](#)

[Decorating Paint Effects](#)

[How to Use Color Wheel](#)

[Color Ideas](#)

[Color Meanings](#)

[Color Information](#)

[Feature Walls](#)

[Paint](#)

[Popular Color Schemes](#)

[Color Schemes](#)

[Color Theory](#)

[How to Choose a Color](#)

[Scheme](#)

[Color Resources](#)

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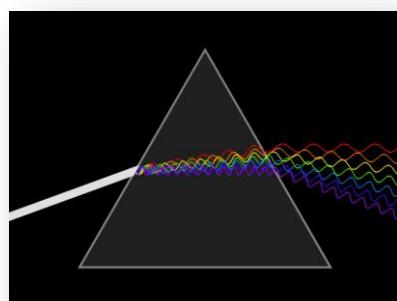
Lighting



What is Light?

This is a question that baffled scientists for centuries but as our knowledge of the energies that surround us evolved so did our knowledge of the electromagnetic spectrum and energy. Light is a form of electromagnetic energy and visible light is part of that electromagnetic spectrum.

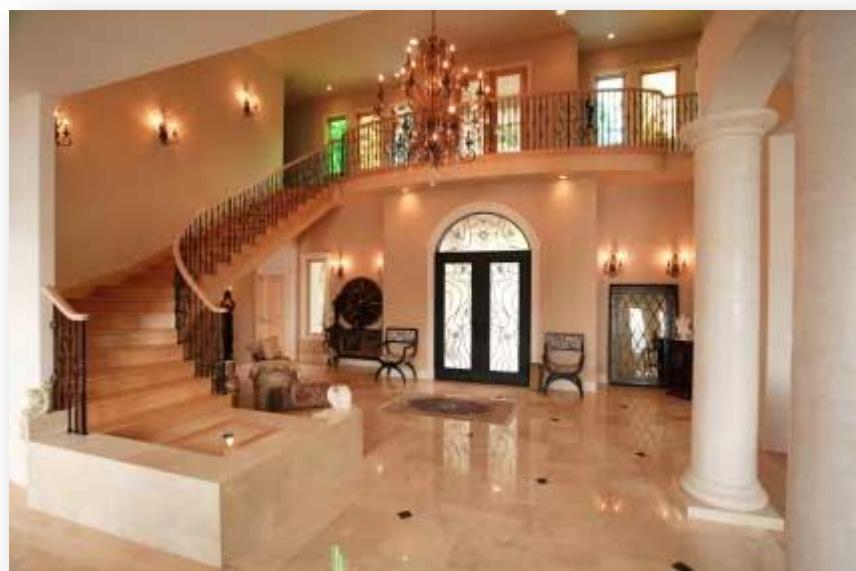
It is transmitted in waves the same as radio, radar and TV but is of a particular size or wavelength.....[learn more](#)



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Using lighting without doing anything else to the room, can enhance a room incredibly. It can change colors without painting, make you feel alert, make you feel relaxed, create focus, create intimacy and even change the appearance of the room's size and height.

From experience it is one of the most important elements in Interior Design. Without it you will never get the full benefit of all the other elements that you have incorporated into your design. The link below will take you directly to www.interiordezine.com and the introduction to lighting.....[more](#)



Lighting Terms

Low Voltage Tungsten Halogen: Gives a crisp white light, excellent for bringing out or enhancing the color. The effect can be softened using gold back reflectors or reflected off other areas rather than direct. These can be used in discreet areas because of the size however they need a transformer (and this has to be mounted somewhere close by e.g. in the ceiling) as they usually run on a 12-volt system. Heat can be a problem with them and the lamp needs to be well ventilated and have a heat sink to the back of them to draw the heat away from the lamp itself into a ventilated area. Led lighting which although still in its infancy is fast becoming a viable alternative to the halogen.





Halogen lamps



LED lamp

Lumen: This expresses the quantity of the light. (Luminous flux) eg 1 candle gives of 1 candela of light but that light goes in all directions so the total quantity of light is measured by the amount that is given in all directions.

Lux: This is the measurement that is used to measure the illumination of a surface. (Light on the surface). Eg 1 lux is provided when a luminous flux of 1 lumen falls on each square meter.

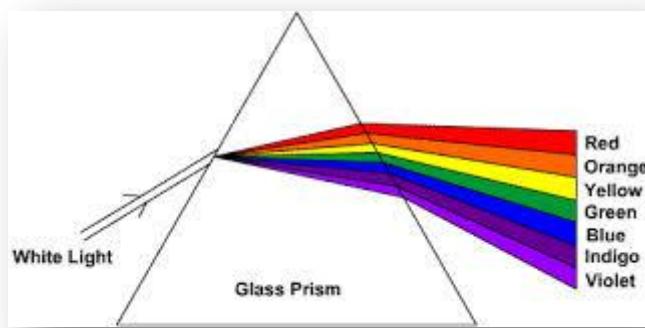
Each color of light has its own wavelength in the electromagnetic spectrum. When all the colors are combined we get a mixture recognized as white light. If this light is shone through a glass prism then the white light is separated into the colors of the spectrum. [.....read more](#)

It is important to understand this when dealing with lighting as different types of light gives off different colors or combinations of colors. The average midday sun appears to have all the colors in it while artificial light can only approximate it. (Note the different types of light that you get at varying times of the day such as early morning or dusk).

All visible artificial light is within the violet to red spectrum range however varying types of artificial light concentrate on different parts of the spectrum.

For example low-pressure sodium lamps ([see types of lighting](#)) emit their light in the narrow part of the spectrum that gives an intense orange yellow light and therefore distorts the color of all non-yellow objects.

To conclude, when designing a harmonious and balanced environment, it is important that the correct lamp specification for the situation is selected.



How we See Color (the theory....[read more](#))

The eye responds differently to different colors. It responds best to the green yellow area of the spectrum and less to the blue violet or red ends. (If you think about it this also relates to moods. A bright room creates a sense of well-being and happiness while the dark creates a different mood all together).

To understand how color is seen, take the view that colors are in the light and not the object. When light falls on an object its surface will absorb some colors and reflect the rest. The colors that we see are those that are reflected. E.g. green objects reflect green light but absorb the rest and blue objects blue light while absorbing the rest. Black objects absorb all light and white objects reflect all light. You will note that it is almost impossible to get a true black or a true white. (Not to be confused with mirror which forms images by reflection)

If you focus on light and color this way then you will understand the importance of illumination and how it renders and colors an object or the space it is illuminating.

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Color Appearance



[Color appearance of light](#) is usually expressed as a cool light or warm light. Color temperature is a way of describing the color appearance of the lamp. Color temperature is measured in degrees Kelvin. (Celsius is converted to Kelvin by adding 273) The coldest temperature that we know of is absolute zero and that is -273 degrees Celsius (or 0 degrees Kelvin). I.e. 100 degrees Celsius is 373 degrees Kelvin.

Note that the color temperature of a light source rises with its thermal temperature paradoxically, therefore the higher the temperature, the cooler the light. (The main point here is that color temperature and thermal temperature although related are not the same thing). For example, a candle's color temperature may be 2000 degrees Kelvin and it gives a warm yellow light however some fluorescent tube's color temperature may be at 4000 to 6000 degrees Kelvin and generate a very cool light.

Color Rendering

This refers to the appearance given to an object by the light source. This is important, in interior environments much of the light is reflected back off the surrounding objects and surfaces, therefore these objects and surfaces don't have a true color (because it is artificial light) so, knowing the light source's true color rendering capability is important. [Read more](#)

The international commission on illumination (CIE) has developed a color-rendering index (CRI) by averaging spectral light source from 0-100.

The higher the number, the truer the color rendition at its color temperature.

When comparing lamps, to give a fair comparison, the color temperature must be the same.

Light consists of two main elements:

Color and Intensity

Color is the part of the spectrum being used.

The spectrum is the range of colors from red having the longest wavelength to violet with the shortest wavelength that is produced when a beam of light is passed through a prism. [more information](#)

Intensity is the amount of light being used.

Within this section of design we will explore many of the elements of light including sources, fittings, types and uses and a basic system of designing lighting.



As always, in all aspects of design, as you think about the design of the lighting you need to be aware of all the other elements within the room and what you are trying to achieve.

Every room's shape, size and mood are directly dependent on the type and quality of light that illuminates it. The source can be from a single incandescent bulb in a batten fitting, to a complex set of up lights, downlights and uplights.



Task Lighting



Downlight

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Uplighting and Downlights

Uplight

Further Reading

Read more about lighting at the links below

[Lighting Terms](#)

[Color Rendering](#)

[Lighting Heating
Ventilation Resources](#)

[Lighting Checklist](#)

[Candela, Lux, Lumen](#)

[Energy Efficient Lighting
Company](#)

[Lighting Existing Rooms](#)

[Green Lighting](#)

[Energy Mad Videos](#)

[Lighting New Rooms](#)

[Design Tips](#)

[Energy Mad](#)

[Lighting Planning](#)

[Design](#)

[Ecospiral](#)

[Types of Lighting](#)

[What is Lighting](#)

Summary

This was a selection of information about color and light – we hope that you now have some insight into the life of an interior designer. Please take advantage of the other ebooks and ecourses available.

This is Part 3 of “Are you an Undiscovered Interior Designer?”

To find Parts 1,2,4 & 5 visit the [free downloads](#) section of the website.

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