

Impact of light on paint

Impact of light on paint



**Lovely Professional University**

**Impact of light on paint**

**A Dissertation**

**Presented to the Faculty of the Lovely School of Architecture & Design**

**Lovely Professional University**

**In Partial Fulfilment**

**Of the Requirements for the Degree of  
Masters in Interior and Furniture Design**

**By**

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**November, 2017**

## **CERTIFICATE**

This is to certify that NEHA S. GUMBLE bearing Registration Number 11600794 has completed her project titled, “IMPACT OF LIGHT ON PAINT” under my guidance and supervision.

To the best of my knowledge, the present work is the result of the original investigation and study. No part of the project has ever been submitted for any other degree at any university.

This paper is fit for submission and the partial fulfilment of the conditions for the award of the degree of Masters of Interior and Furniture Design.

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## **CANDIDATE'S DECLARATION**

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation and referencing of published and unpublished sources). I, the student of Interior and Furniture of Design under Lovely School of Architecture and Design, Lovely Professional University, Punjab, hereby declare that all the information furnished in this paper is based on our own intensive research and is genuine.

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## **ABSTRACT**

Light and Paint are mutually dependent on each other. Paint is the key to understand light in architecture because it directly affects the quantity and the quality of the light. Research based on connection of light and paint with human psychology enables us to understand the mood and behavior. Human eye, perceives natural as well as artificial light which affects neurons, hence feelings. Since we cannot change the natural light intensity which affects painted surfaces but we can control artificial light and dictate human mood and behavior. So the selection of paint, colors or other material according to light is really important. To show this, experiments are conducted to explore the effects of light on painted surface which comes through artificial lighting. A study to show and discuss the impact of certain colors in presence of certain light is projected in the paper. This may enable us to explore positive and negative impacts, on human mood and behavior.

**Keywords-** human psychology, mood and behavior, paint surfaces, positive and negative impact.

## CHAPTER 1: INTRODUCTION

Light and paint are inseparably connected to each other, they determine each other. For this reason architects and interior designers allow themselves to manage the light and choice of interior paint in building. Paint is the first choice while doing interior and one of the important material in architecture. It is the key to understand the quantity and quality of light. With light, actual color of the paint appears different. This results, change in actual choice of color, hence the mood and behavior.

Similar to light, materials affect us emotionally and level of glare and shine can affect moods. Also the angle, direction, intensity and color of light has different affects. Light emphasizing material and light muting material affect the human eye, hence perception. Colors and material choice is important emotionally in relation with light.

### 1.1 RESEARCH QUESTION

1. How artificial light affects painted surface, hence mood and behavior?
2. How different material affect light, hence mood and behavior?

### 1.2 AIM

To create more lively and livable spaces in interiors that enhance mood and in turn behavior of an individual. The proposal is communication between the color and light to amalgamate interior in suitable and veracious way through practical experiment.

### 1.3 OBJECTIVE

1. Study the effect of different lights on painted surface in a model.
2. Study the behavior of light on different materials and their influence on human mood.

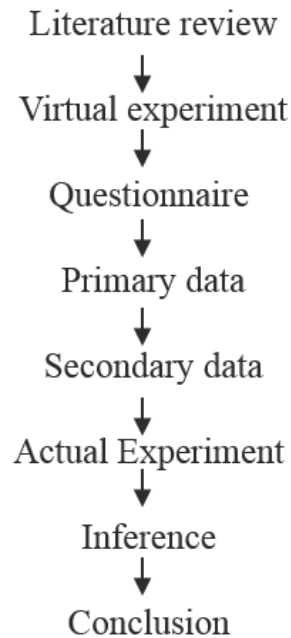
### 1.4 SCOPE

This Research is about the relationships between light and colors by physiological, that have shown light influences on mood and behavior, in a physiological point of view to be able to understand use of light with the help of surfaces in any given space. To be able to change the feel of a place by adjusting light because the effect of light on given materials or surfaces may bring differences in mood.

### 1.5 LIMITATION

In this experiment while talking about paint and light, light intensity is kept constant.

### 1.6 METHODOLOGY



## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 INTRODUCTION OF PAINT**

In a first time paint introduced about 25,000 years ago. The men were shikari and cave dwellers and inspired from the rock formations. The chemical analysis of paint which found in caves discovered in Spain and France. They used colors which comes from rock formations. The color which found namely black, red and yellow, wood ash also have been used and Natural colors used to come from stone likewise blackish stone, reddish. (L. Lambourne, 1999)

#### **2.1.1 PAINT AND SURFACE COATING**

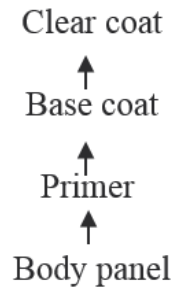


Figure 1- showing they layers of paint coat

(Courtesy: Author)

White pigment gypsum named calcium sulphate has been using during these days. The paint or surface coating often used for inter changing. The layers of paint coating is body panel- primer- base coat- clear coat. (L. Lambourne, 1999)

## 2.1.2 PAINT COLOR TERMINIOLOGY

There's nothing confused about interpreting warm hues from cooler ones. The shading wheel does everything for you. Split down the center, it uncovers which of the 12 shading wheel tints are cool and which are warm. (Poore, 1994)

### 2.1.2.1 PRIMARY, SECONDARY AND TERTIARY HUES

In a color essential hues are the three hues red, yellow and blue that can be combined together to form any combination of other colors, called **primary colors**. Which means other colors we will get from these three colors. Green, orange and purple is called the optional hues means

**secondary colors.** **Tertiary hues** are made by combining essential (primary) and optional (secondary) hues, for instance yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green and so forth.

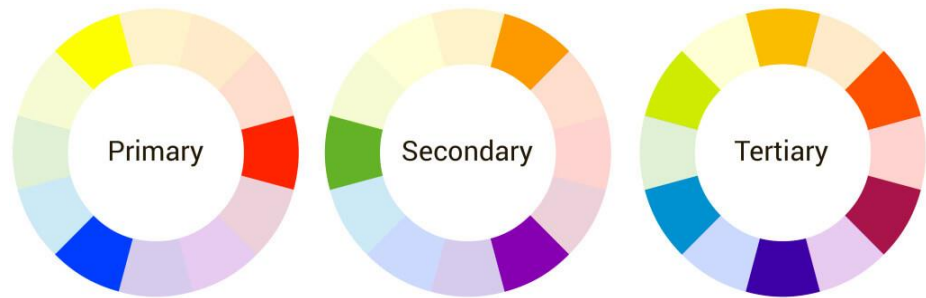


Figure 2- showing primary secondary and tertiary colors (color theory)

Courtesy: Google images

#### 2.1.2.2 TINTS, SHADES AND TONES

Tints, shades and tones are essential shading ideas where you can either make a shading lighter by including white the subsequent shading is a tint; make a shading darker by including dark the darker variant is known as a shade; add dark to make a totally unique tone.

#### 2.1.2.3 WARM AND COOL COLORS



Figure 3- showing warm hues and cool hues (color theory)

Courtesy: Google images

There's nothing confused about describing warm hues from cooler ones. The shading wheel does everything for you. Split down the center, it uncovers which of the 12 shading wheel tones are cool and which are warm. (Poore, 1994)

#### **WARM COLORS**



Figure 4- showing warm hues (color theory)



Courtesy: Google images

Warm hues like red, orange, yellow and variations of these three hues are dynamic and full of energy. These are the shades of flame, are for the most part stimulating, enthusiastic, and positive. Red and yellow are the essential hues, with orange falling in making it an optional shading. Utilize warm hues in your outlines to reflect energy and bliss.

### **COOL COLORS**

Cool hues like green, blue and violet offer quiet and calm, they're regularly more submerge than warm hues. Cool hues include green, blue, and purple, are frequently more serious than warm hues. They are the shades of night, of water, of nature, and are typically calming. Blue is the just a single essential shading inside the cool array, which implies alternate hues are made by joining blue with a warm shading along these lines, green goes up against a portion of the credit of yellow, and purple goes up against a portion of the credit of red. Utilize cool hues in your outlines to give a feeling of quiet or capability.



Figure 5- showing cool hues (color theory)

Courtesy: Google images

**NEUTRAL COLORS**





Figure 6- showing neutral hues (color theory)


Courtesy: Google images


White, black and gray is the hue one the other hand called as a neutral colors.


**2.1.3 COLOR MEANING**


**RED**  is the shading which demonstrates fire and blood, so it is connected with spirit, war, risk, quality, control and in addition energy, want, and love. Red is an intense shading. It has high perceivability (to become aware of something), which is the reason stop signs, stoplights, and fire hardware are typically painted red. On the opposite side, red is utilized to indicate battle. Red is frequently used to summon sexual emotions. Red is utilized to demonstrate risk high voltage signs, movement lights. This shading is additionally usually connected with energy. (Nelson, 2017)


**ORANGE**  mix the vitality of red and the joy of yellow. It is identified with euphoria, daylight. Orange intends to excitement, interest, bliss, mettle, fascination, achievement, inspiration, evoke. To the human eye, orange is a to a great degree hot shading, it gives the vibe of warmth, however orange isn't as forceful as red. Orange builds oxygen, creates, and raise mental action. It is exceptionally get among youngsters. Orange is representative of quality and continuance. Orange has dazzling perceivability. (Nelson, 2017)


**YELLOW**  demonstrates the shade of daylight. It's identified with euphoria, satisfaction, and energy. Yellow collect a warming impact, sparkle, raises mental action, and produces vitality. Yellow is frequently related with nourishment. Yellow is a consideration, this is the motivation behind why cabs are painted this shading. Yellow is exceptionally powerful to attract consideration, so utilize it to feature the most imperative components. (Nelson, 2017)

**GREEN**  is the shade of nature that indicates development, freshness, and fruitfulness. Green has forceful passionate likeness with security. Dull green is likewise regularly associated with cash. Green has extraordinary power that it is the most serene shading for the human eye, it can enhance vision. Green, instead of red, implies wellbeing; it is the shade of free section in street activity. Utilize green to show security when publicizing medications and curative items. Green is specifically identified with nature, so you can utilize it to advance 'green' items. Dull, darker green is regularly connected with cash, the budgetary world, keeping money, and Wall Street. (Nelson, 2017)

**BLUE**  is the shade of the sky and ocean. It is frequently connected with thoughtfulness and solidness. It symbolizes calm, balanced, cleverness, positivity, insight, confidence, truth, heaven and paradise. Blue is viewed as helpful to the brain and body. It moderates human digestion and produces a quieting impact. Blue is connected with quietness. Blue is utilized to symbolize love and intense. (Nelson, 2017)

**PURPLE**  joins the strength of blue and the imperativeness of red. Purple is connected with prominence. Purple speaks to control, respectability and aspiration. It convey riches and satisfaction. Purple is speaks to knowledge, respect, inventiveness, secret, and enchantment. Light purple review sentimental emotions. Dim purple review misery and dismal sentiments. It can cause disappointment. (Nelson, 2017)

WHITE  White shading speaks to light, goodness, blamelessness, virtue, and virginity. This shading has been judge to be the shade of flawlessness. White considered wellbeing, and cleanliness. As inverse of dark, white normally has a positive emotions. White can demonstrates a fruitful start. White speaks to confidence. Additionally connected with coolness and cleanliness since it's the shade of snow. (Nelson, 2017)

BLACK  is associated with control, style, convention, passing, and riddle. Dark is an abnormal and curious shading. It thought to be an exceptionally formal, rich, and admire shading. Dark makes the range feeling of point of view likewise knowledge, however a dark foundation reduces decipherability. When outlining for an exhibition of workmanship or photography, dark or dim foundation can influence alternate hues to emerge in light of the fact that Black is considered stands out well from other hues. (Nelson, 2017)

**Additive colors (RGB)** is stand for Red, Green and Blue are added to produce all intermediate colors called as additive color. **Subtractive colors (CMYK)** colors (Cyan, Magenta, Yellow, and black) which is called subtractive colors.

**Complimentary Colors** every hue has there opposite side of color. Opposite by looking directly across the color wheel eg. The opposite of blue is orange. The opposite of any color is called its complimentary color. **Achromatic colors** is the white, black and gray color which called as a neutral color. **Monochromatic color** is tints, shade, tones of any color and also neutral colors. **Analogous color** Similar to shading plan any three shades, tints or tones of the color of the lie nearby each other on the shading wheel. **Extended analogous color** uses for any four color or more than four which lie nearby each other on the shading wheel. **Triadic color** plan is contained 3 on the shading wheel are similarly divided from each other. **Contrasting colors** are fundamentally the same as Complimentary Colors shading that difference help each other to emerge all the more dynamically. (Poore, 1994)

#### 2.1.4 METHOD OF APPLICATION OF PAINT

Method of application of paint on surfaces affects incident light in varied way. For applying paint there are three methods are as,

By spreading method- using of brush roller, Doctor blade. By spraying method- air fed spray, airless spray, hot spray. By flow coating method- dipping curtain coating roller coating. The strategy received upon the market in which the paint is utilized each sort of paint Being detailed to address the issues of the application technique. The rule market of the paint are the enhancing (family unit and building) paints advertise market. (L. Lambourne, 1999)

## 2.2 HOW HUMAN PERCEIVE COLORS?

Human perceive colors when light enters the eyes and detected by the photoreceptors called cone which is mainly located in the fovea. We have trichromatic colors vision which means we have three different kind of cone that defect a specific wavelength of light namely short blue, medium green, long red. How human perceive colors is also depends on how dim or bright light is.

## 2.3 INTRODUCTION OF LIGHT

The first of light originated from the old Greek. Light was described as a ray, a straight line moving starting with one place then onto the next. Note is the vast majority of what we see, in any case, is obvious in view of the light that is reflected from the surface of object.

### 2.3.1 FEATURES OF LIGHT

Light is a radiant energy. In all the directions it radiates equally. Its spread all over large area as it comes from source. Its intensity according to the square of its distance from the source. The note is as it moves light comes to our eye contact and form the object in space.

Discern shape, color, and texture, to differentiate one object from another.

Brightness. Brightness alludes to how much light energy is reflected by a surface.

**Contrast-** The contrast between an Object and its background is especially critical for visual Tasks that require the Discrimination of shape and Contour.

**Diffusion-** Soft light with neither the intensity nor the glare of direct light. It is scattered and comes from all the direction it is softer and does not caste harsh shadow

**Glare-** Glare is Contrast in brightness between different objects in one field of vision and **color.**

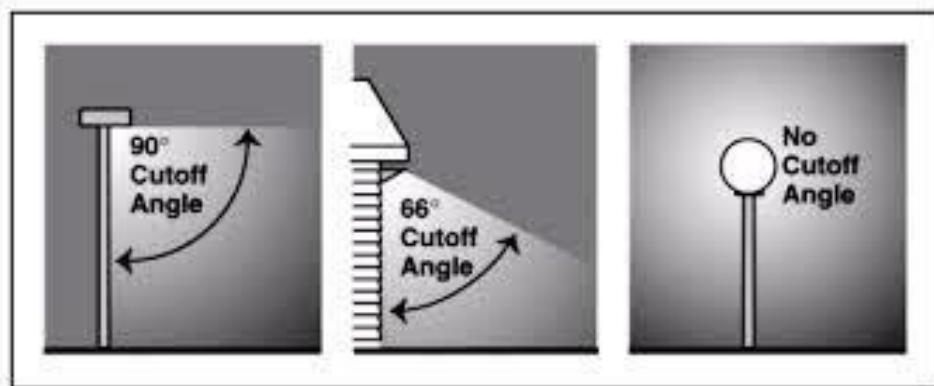


Figure 7- showing cutoff angle of light

Courtesy: Google images



### 2.3.2 ARTIFICIAL LIGHTING

Artificial light sources are different source of light which created to make up for or assist the natural light. According to the function or aim there are five basic type of lighting, are as follows ambient lighting, task lighting, accent lighting, informational lighting/guidance lighting, and decorative lighting. Different artificial light as well as natural light will all have a different relationship with your walls and ceilings.

### 2.3.3 LIGHT EMPHASIZING PAINT



Figure 8- showing light Emphasizes effect on wall surface.

Courtesy: Google images

Importance of materials is grounded in the dealing between light and material. Highlights emerge from glossy color reflecting distinct points of light. Talking about light emphasizing paint, dark color paints which makes background dim and focus is on light. Dark shadows result from light being bounce from the surface because of dark hue, and from material absorbing light, The color of a wall surface used is a dark hue so Light focus the covered area of soft and light materials result is other background not comes in focus point.

#### 2.3.4 LIGHT MUTING PAINT



Figure 9- showing Kimbell Art Museum with light muting effect on wall surface.

Courtesy: Google images

Materials can likewise be quieted the impacts of light, to make dissimilar materials appear similar, or to make the light seem unchanging. The color which used on a wall surface is totally light colors that is why the light is coming and bounce on a surface of wall has been given a soft feeling and material and light both are partially visible and showing soft connection between them that is why light makes you feel on muting mode.

## 2.4 HOW SUNLIGHT AFFECTS PAINTED SURFACES

Natural light is the primary consideration while choosing any hue for a space.

(Millet, 1996)

### 2.4.1 NORTH FACING ROOM

Light in these rooms is cool and pale blue. Bolder shades seem better than anything calmed tints; lighter tones will look dull. Light from the north side is cooler and harsher. Dark hues will all make a sense in a dull space. Northern light bring out the cooler tones inside a shading, while at the same time utilizing a lighter tone, avoid from anything with a green or dark base. Yellow based hues will reflect however much light around the room as could be expected.

#### 2.4.2 SOUTH FACING ROOM

South facing room gets harsh sunlight. In south façade dark colors look brighter and glow. Because of warm light south facing rooms are joy to decorate, as all colors will look good. Pale tones makes south facing rooms maximizing the feelings.

#### 2.4.3 EAST FACING ROOM

Light in the east side is warm and yellowy before the noon time. And it turns bluer later in a day. That is why wall surface which is white reflect natural light could say natural light reflector. Advantage of white wall surface is it will enhance natural and artificial light in east side.

#### 2.4.4 WEST FACING ROOM

In night time light in room is warm, in the morning light it can make shadows and impact shading to look dull, The light in east-side rooms can have every one of the reserves of being a little blue so it is best to work with this and pick greens or blues. If you have to use a white, pick one with a green or blue base. Light in west facade spaces is cooler in the morning by then stacked with staggering light toward the night, while east-bound rooms are marvelous in the morning and cooler toward the night.

### 2.5 HOW ARTIFICIAL LIGHT AFFECTS PAINTED SURFACES

## Impact of light on paint

In the room the type of artificial light which we are using it will change the effect in a room.

**Incandescent light-** these is the type of warm light, with yellow golden color will makes red, oranges and yellow color more strong and enhance in appearance. And will make dull impression on blues and greens.



Figure 10- showing Incandescent light

Courtesy: Google images

**Fluorescent light-** as opposite of fluorescent light these is the type of cool light improves blues and greens



Figure 11- showing Fluorescent light

Courtesy: Google images

Cooler light that enhances blues and greens, and diminishes warmer hues like red, oranges and yellow.

**Halogens light-** closely resembles daylight, and makes colors stand out more.



Figure 12- showing **Halogens light**

Courtesy: Google images

This lights resemble to the natural light and make all colors look more realistic and strong in appearance. Using halogens would make you the shift from daylight to artificial light less vibrating.

**Compact fluorescent lights (CFLs)-** create either a warm white, neutral, or bluish-white light.



Figure 13- showing **Compact fluorescent lights**

Courtesy: Google images

**Light-emitting diodes (LEDs)** – can appear warmer or cooler LEDs, lighting whose color you can control wirelessly. More flexible and adjustable than the other lighting and looks good with most paint colors.



Figure 14- showing **Light-emitting diodes (LEDs)**

Courtesy: Google images

Artificial lighting affects likewise colors appear in a room as different bulbs have different hues of light. Halogen and incandescent bulbs cause a yellow light that will make colors visible warmer. LED lighting emits a bluer light and is more adjustable in the modern interiors. Selecting a bulb which produced a white light will make colors appear as close as possible to daylight, truest impression of the color.

The impact of lighting measured the behavior of occupant. Individuals performance was characterized in view of lighting that means People can performed better in conditions where lighting is nonpartisan and neutral. Light Lines, shapes, shading, and their bodies to express feelings the direction of light, towards express emotions. Virtual people use stances, motions, face and voice to express feelings. The digital

medium bears the outflow of feelings utilizing lights. Now a days light can adjust according to the mood. Likewise **Light-emitting diodes (LEDs)**.

## **CHAPTER 3: EXPERIMENT**

### **3.1 EXPERIMENT NO. 1.**

Type- 3D experiment (virtual environment), View- night light and Intensity of light- constant.



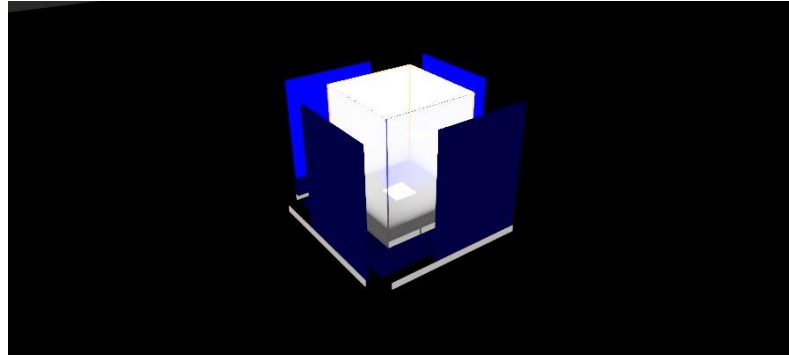


Figure A-Hue of light-white (Courtesy: Author)

Surface hue- blue

Background hue- black

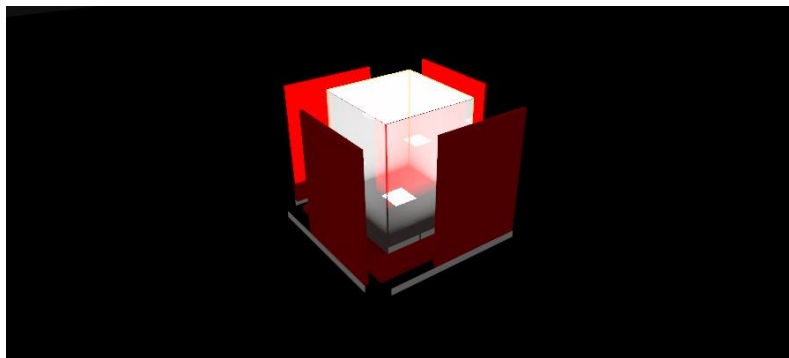


Figure B-Hue of light-white (Courtesy: Author)

Surface hue- red

Background hue- black

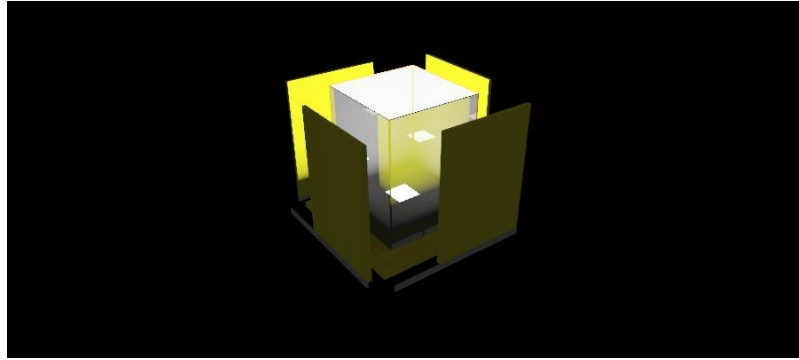


Figure C-Hue of light-white (Courtesy: Author)

Surface hue - yellow

Background hue- black

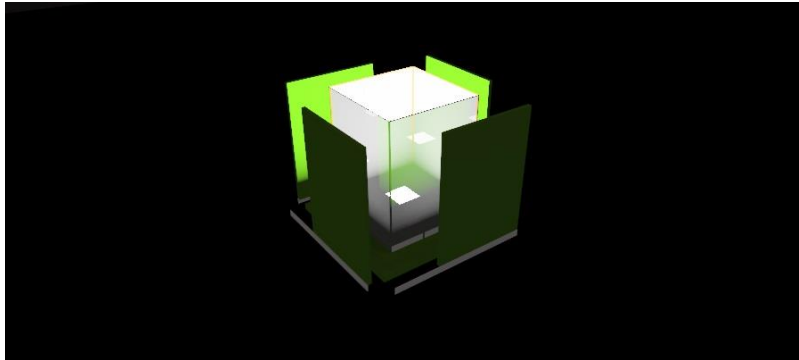


Figure D-Hue of light-white (Courtesy: Author)

Surface hue - Green

Background hue - black

## Impact of light on paint

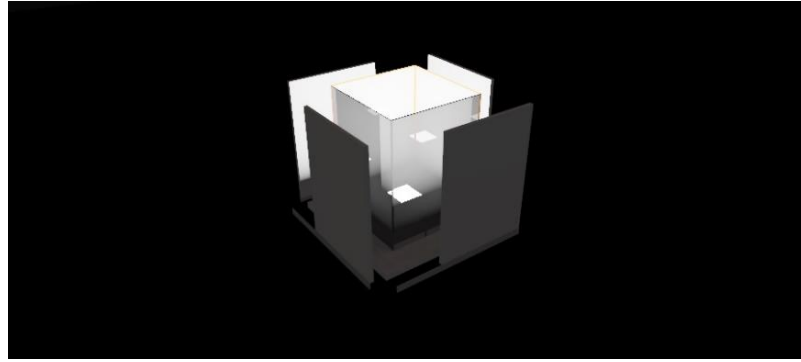


Figure E-Hue of light-white (Courtesy: Author)

Surface hue - white

Background hue - black

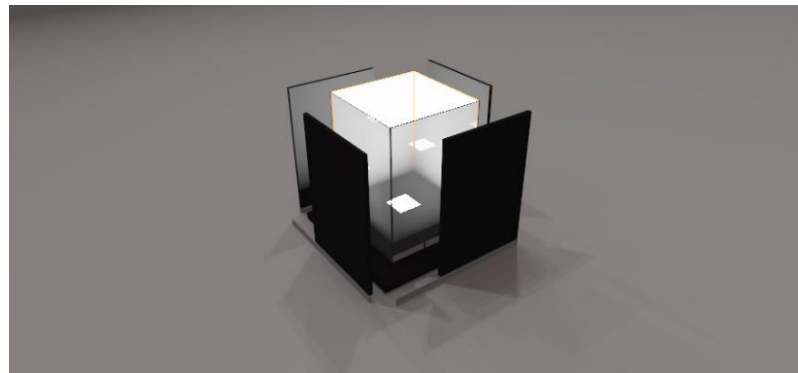


Figure F-Hue of light-white (Courtesy: Author)

Surface hue- black

Background hue- white

In this area the white background has been given. The original color has shown as it is where the light is not reaching but the where light is located it has making bright layer on black paint showing that background color is necessary while selecting paint.

### **3.1.1 RESULT**

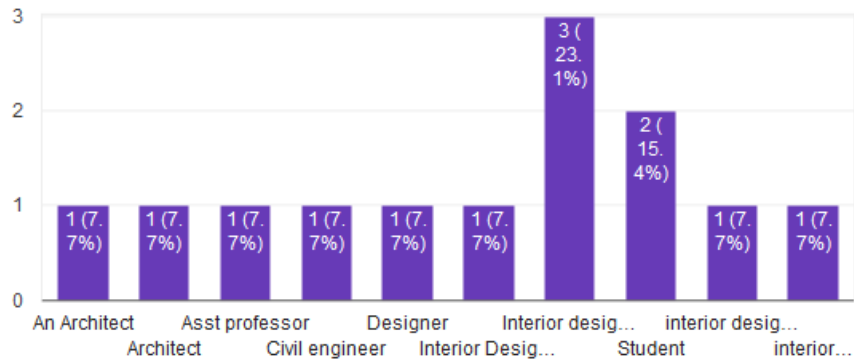
Fluorescent light has been used in an experiment. Blue is considered calming and relaxing and a primary color in a room balance it with cool light. On a blue, white light affects seems turning into blue which makes it brighter. Same as like on red, yellow and green that originally appear as dull hues turn into brighter hues. On a black paint, black has a strong hue that absorbs light, appears to be light gray. It is because the light is constant but evoke different emotions in two different area that are bright and dark. The Biggest effect on color comes from the light. Dark black, gray, observe more light red, blue, green did not observe light much.

### 3.2 QUESTIONNAIRE

According to this survey, perspective of people and their knowledge as a designer towards paint surfaces and light is help me to find out query regarding experiment.

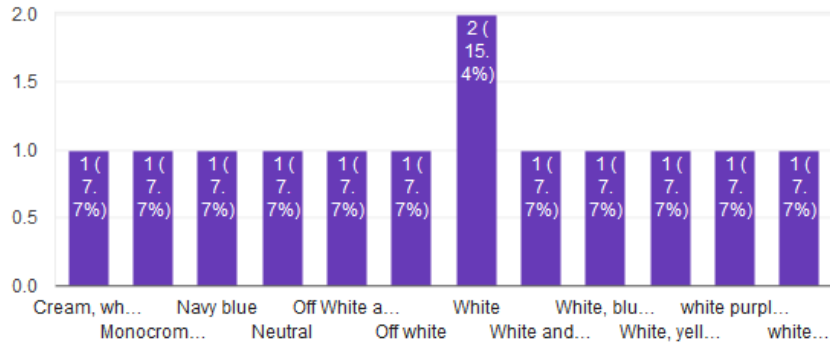
#### what is your profession ?

13 responses



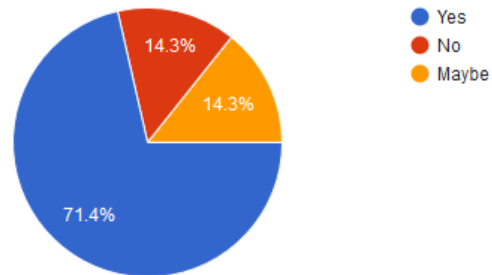
#### As an Interior Designer name the colors of paint you often use while designing?

13 responses



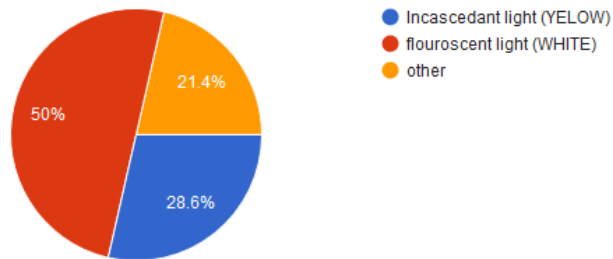
Do you have any idea about artificial lighting does effects on paint?

14 responses



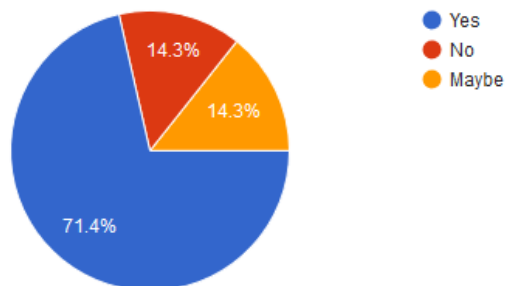
Talking about artificial lighting which type of lighting you preferred the most while designing?

14 responses



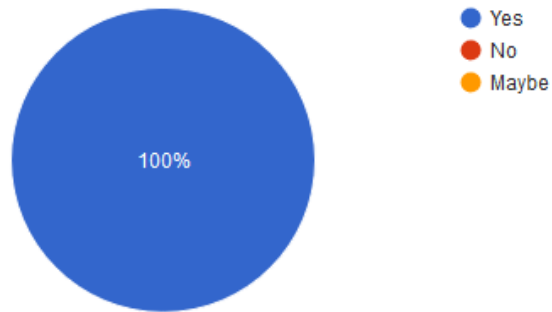
Do you ever apply color theory with lighting while designing ?

14 responses



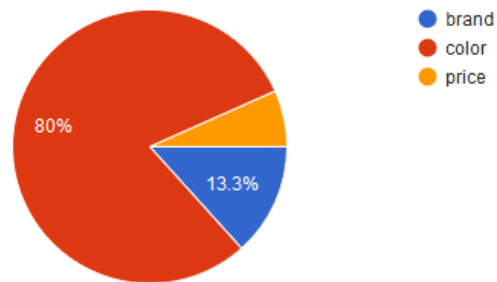
### Does wall surface color effects on your thinking?

14 responses



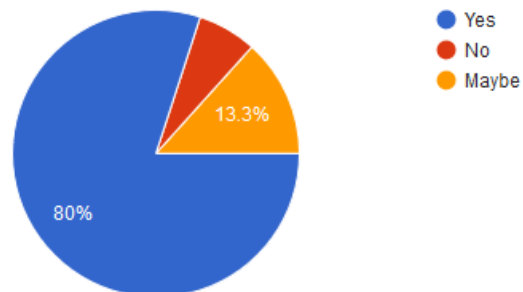
### What do you think the most important factor while choosing interior paint would be?

15 responses



### Does lighting fixtures can also change effects on paint?

15 responses



**Mention any three colors you liked or you think would go with any type of lighting.**

15 responses

(Green, white) (White, grey, light blue) (White, black, yellow) (All cool colors)

(Blue, white) (White, Beige, Blush pink) (White, black, yellow, red)

(Cream white, dark brown, and yellow) (White blue pink) (Off White, beige and grey

color) (Brown, white and royal blue) (Ivory, white, gray) (White cream yellow)

(White, pink, beige and fawn) (White black)

White - 14 no. Black- 2 no. Gray- 2 no.

Blue - 5 no. Yellow- 5 no. Pink- 4 no.

**Any Suggestion or idea about how to amalgamate interior paint with artificial lighting properly.**

11 responses

- Colors can be chosen according to use of that area.
- It must be cool or warm color but it must reflect the light so that it could enhance our activity and productivity.
- Any distinctive types of lighting can enhance the aroma of the space. So fixture should be complimenting with the color of wall.
- Designing in such a way so that when both interact each other it would create a live ambience.
- It depends on the test of designer. But it should be eye catching. .



## Impact of light on paint

- Down lighters and uplighters can be used to highlight the paint effect and can also use wall lamps. Use dim lights on wall.
- Mixture about light and color theory of human's attention, and selection of artificial light.
- Careful consideration behavior and mood according to color selections the material selection.
- Combination should be proper.

### 3.3 EXPERIMENT NO. 2.

Type- Practical experiment

View- night light (Incandescant lighting and fluorescent lighting)

Intensity of light- constant

Dimension of room- (3m x 3m x 2.7 m x 3m)

Verities of paint on wall surface

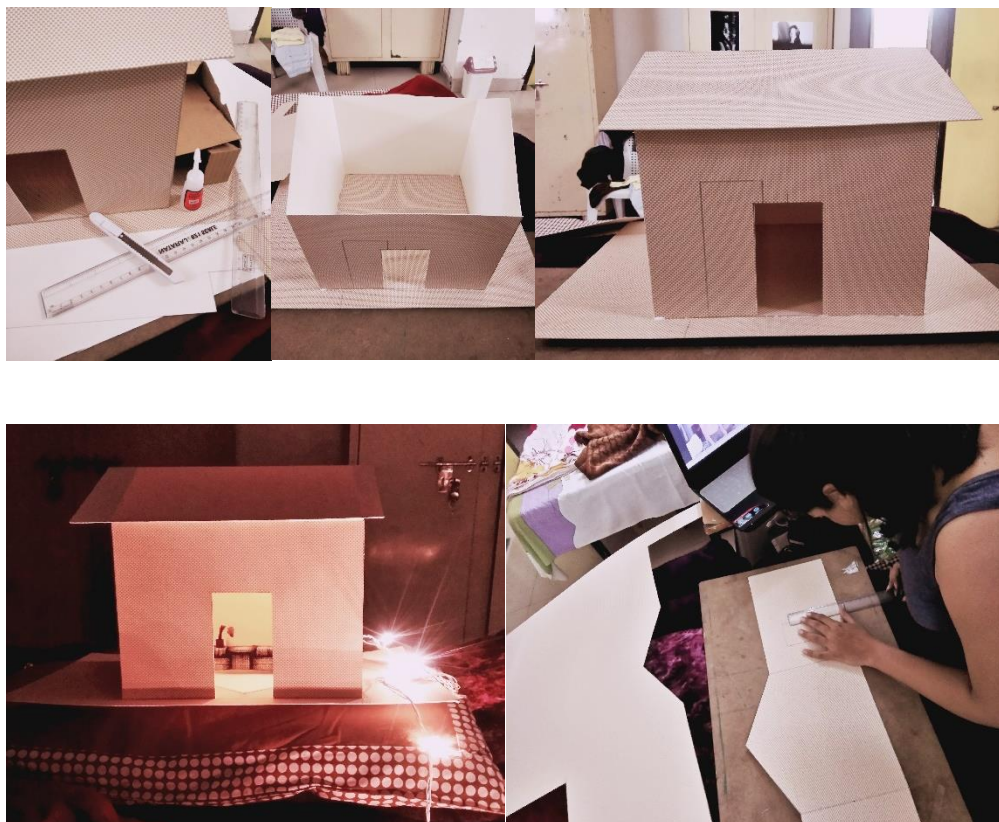


Figure- making of model for experiment (Courtesy: Author)



Figure G-Hue of light- yellow

Base color surface- Green (Courtesy: Author)



Figure H-Hue of light- white

Base color surface- Green (Courtesy: Author)



Figure I-Hue of light- yellow

Base color surface- Blue (Courtesy: Author)

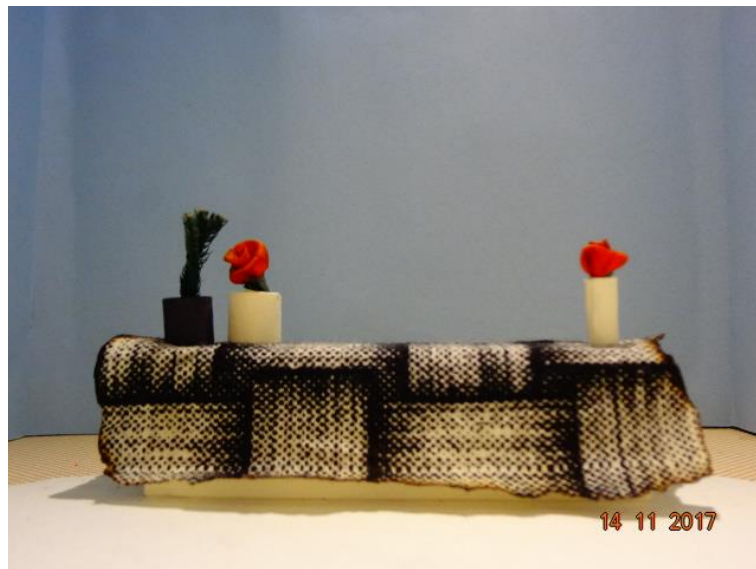


Figure J-Hue of light- white

Base color surface- Blue (Courtesy: Author)



Figure K-Hue of light- yellow

Base color surface- Pink (Courtesy: Author)



Figure L-Hue of light- white

Base color surface- Pink (Courtesy: Author)





Figure M-Hue of light- yellow

Base color surface- orange (Courtesy: Author)



Figure N-Hue of light- white

Base color surface- orange (Courtesy: Author)



Figure O-Hue of light- yellow

Base color surface- Red (Courtesy: Author)



Figure P-Hue of light- white

Base color surface- Red (Courtesy: Author)

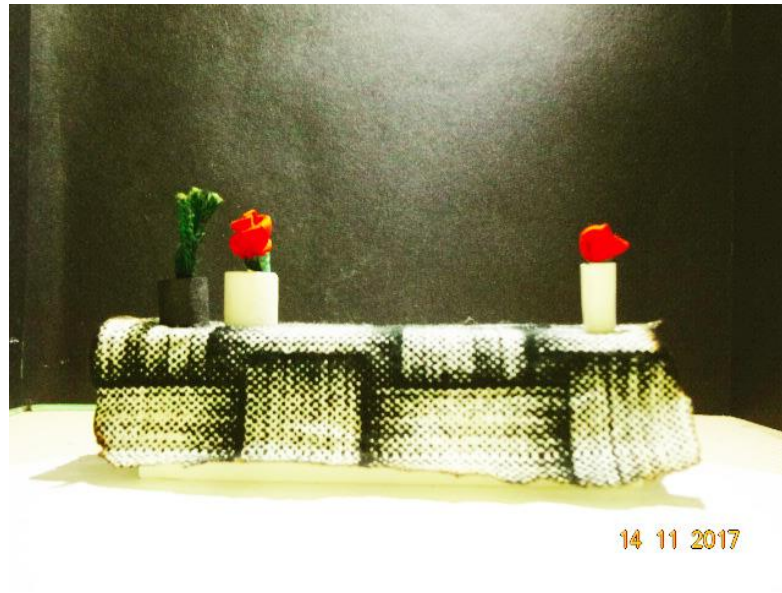


Figure Q-Hue of light- yellow

Base color surface- black (Courtesy: Author)



Figure R-Hue of light- white



Base color surface- black ((Courtesy: Author)

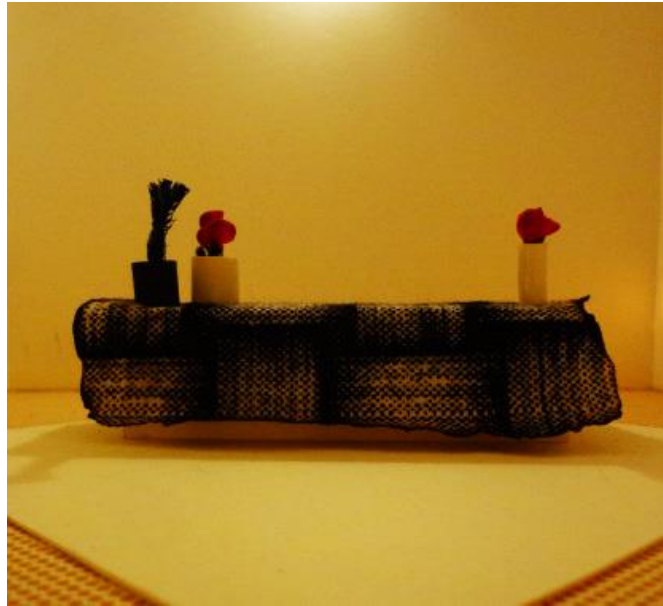


Figure S-Hue of light- yellow

Base color surface- white (Courtesy: Author)



Figure T-Hue of light- white

Impact of light on paint

Base color surface- white (Courtesy: Author)

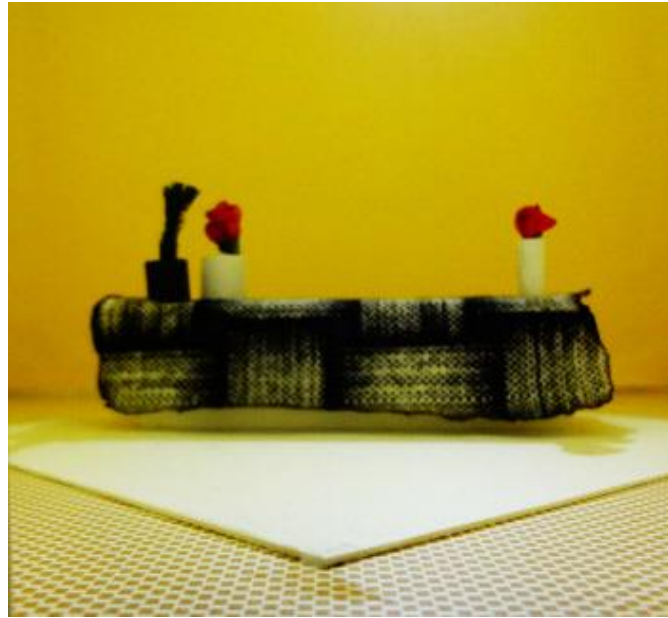


Figure U-Hue of light- yellow

Base color surface- yellow (Courtesy: Author)

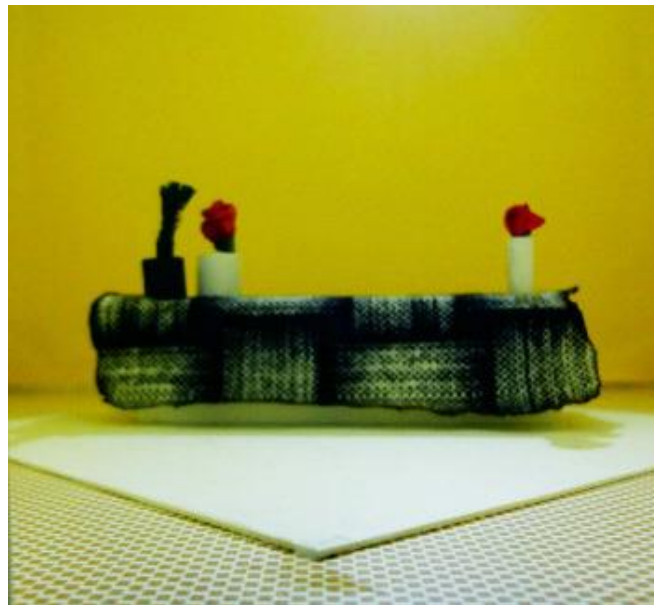


Figure V-Hue of light- white

Base color surface- yellow (Courtesy: Author)

### 3.3.1 INFERENCES

- In these experiments colors that come under warm hues like red, orange and yellow, are dynamic in nature, reflect energy and are considered full of joy because of their brightness.
- In room the type of artificial light changes the appearance of color. With the incandescent light, warm hues on walls appear stronger and enhance their brightness. Reason is the presence of yellow light making it stronger.
- As an interior designer or a commercial painter, thinking about painting, learn how light can effect on paint. And ensure while choosing paint for your project also be sure check out whether color will go with what type of lighting you are going to select.
- Paint hues appear different in various light conditions because when light is incident on paint hues it reflects its own color as well, resulting in hues appearing totally different. For example in a case of natural (white) light, paint appears dramatically brighter but in contact with artificial lighting it gives reduced brightness, and appear different. Incandescent or halogen light are warm and impact more brightly.
- The true fact is color never stand alone. Any type of light whether natural or artificial light does affect its hue.
- Also lighting fixture like panel light, bulb, wall light, down light, sconces, shades affect colors in room. The reason behind this, light is one of the most important Component which plays significant role in interiors.

3.3.2 CONCLUSION

<u>Color name</u>	<u>Feeling associated with it</u>	<u>Effect of light</u>		<u>How it affects human psychology</u>
		<u>yellow</u>	<u>White</u>	
Green	Refreshment, rest, peace, envy, calm.	Intense	quiet	Dullness, Refreshment, rest, peace, envy, calm.
Blue	Calm, cold, depression, hunger, thoughts	soothing	Calm	Peaceful, flexible and imaginative authentic, coldness
Pink	Soft, romantic, charming, physical and emotional weakness	Dark	Gentle	Increase faith, is gentle, evokes romance
Orange	Spiritual, sacrifice, warm, vibrant, aggressive	Intense bright	bright	Calm, cheerfulness, joy, happy
Red	Passion, danger, heat, aggressive, anger	Intense	Bright	Exciting, active, strong feeling, anger, evoke

Impact of light on paint

Black	Power, mystery, unhappiness, elegance	Bright	Intense	Unsatisfied, dull, empty
White	Lightness, truth, honesty, pure,	Bright	Classy	Calm, cool, innocence, happiness, Secure
Yellow	Spirit, intelligent, jealousy, caution	Intense bright	Bright	Warm, cheerfulness, confident, energy

Successful interior design is underpinned by a few basic laws that is space, light, color, materials. One of the basic and the most important element is lighting. In lighting you can turn dull room to vibrant, relaxing, calming space. Natural light is good for space but at night as we need artificial lighting, Lights affect colors texture and change the mood of a space. The wonderful and complicated thing about color is it effects every aspect of our life even an emotions.

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