

Colors and Their Impacts in Residential Buildings of Hyderabad - Study and Analysis of Human Perception

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Abstract - Color can alter a person's mood, incite anger, or evoke happiness or sadness. Even though most of people don't spend a lot of time thinking about the effects of color in their homes or offices. Yet, the color and design in our home should reflect the people who live inside, and designers and homeowners should use colors wisely to create the intended atmosphere in each space, People are surrounded by color in the daily life, which can define a style, culture and design all around. Color externalizes human-being's tastes and styles; its use in the choice of clothes and/or living environments is a proof. This master thesis study attempts to contribute to the general understanding of the nature of color by addressing the relevant theoretical information, and extracts perspectives about color in terms of interior architecture.

This research paper relied upon the data collected through questionnaire based on response 200 respondents from Hyderabad city. Therefore main objective of this research is to find out perception of people regarding colors and their impacts, their color selection for their houses and aware people about impacts of colors on daily life.

Keywords: Theory of Color, Color Perception, Meaning of Color, House, Living Environments, Color in Interior Space.

I. INTRODUCTION

1.1 Effects of Standard Color

Color is very important part of this world, which cannot be separated from the thought that what people observe around them. Color can make any space alive by making it welcoming and unite .color give a sense of space by giving it meaning. Color can be ordinary or rare, eternal or temporary, use for end product or feelings.

The life on earth is surrounded by different colors, shades and lights everything directly effects humans moods. When we talk about color every color has different sense of connection with humans mind. Color can be selected

according to our choices and moods and can be changed too but changing color of interior will cause difficulty that is why it is important to chosen color wisely.(Michael Russell 2016).

According to many researchers, we live in planet full of colors that we experience every day, these colors directly or indirectly affect our temperament and behavior. Colors are usually used to level out our manner and disposition.(e.g., Babin, Hardesty, & Suter, 2003; Kwallek, Lewis, & Robbins, 1988; Kwallek, Woodson, Lewis, & Sales, 1997; Rosenstein, 1985).

1.2 Awareness and Practice of Standard Colors

The standard colors have severe and well moderate effect on human psychology, various authors have different view but main theories are almost same and standardized. Some colors have very mild upshot and its effects are marginal. However these standard colors are used by various professional when comes to the practice. The perception of common people is very low regarding impacts of colors but even though they influence the professionals. In consequences of those expert fallow wishes of their client it results in unhappy living. The initial studies suggest that mostly common people are unaware that which colors shall be used at target. Mostly color are used on like and dislike without knowing positive and negative effects of the color on human health and pleasure.

1.3 Problems Statement

Color has huge impact on human mood and behavior but that is not educated to common people. In architectural interiors and exteriors clients insist for use of their desired colors without understanding impact, and usually wrong colors are selected thus successful designs even produce unhappy living.

It has been observed that color can make arousal in one's mood. It has a huge impact on feelings; psychologically and physically. Different colors characterize different mood that is why it is very important to understand impacts and effects of various colors while applying it at different spaces.

Therefore this study is carried out to analyze the impact & effects of colors on house mates and upgrade the knowledge of colors in common people.

1.4 Aim of Research

The aim of this research is to highlight impacts of colors, and find out perception of end users about colors used in houses.

1.5 Significance of Research

This research will help to understand importance of color in interior designing, people will get to know how a wrong choice of color in a space can effects their mood and behavior .This research will also suggest ideal color which can be used in interior according of use of space and according to personality of occupant.

II. LITERATURE REVIEW

2.1 Colors and Feelings

Colors and feelings are directly connected Warm colors can inspire distinctive feelings other than cool and calm colors and vivid hues can make diverse sentiments than quieted colors. And It all relay on the factor that how the mental impacts of color are utilized. Colors can make us consider cheerful or pitiful, and they can make us feel starving or loose. These responses are established in mental impacts, organic training and social imprinting. That’s why it’s vital to get it the mental impacts colors might have on an normal individual as well the essentials of color hypothesis and the implications of colors.

Color, can be spelled as color, the angle of any protest which will be portrayed in terms of tone, lightness, saturation. In material science, color is related particularly with electromagnetic waves of a certain run of wavelengths obvious to the person eye. Rays of such wavelength constitute the parcel of the electromagnetic range recognized as the unmistakable field—i.e., light.

2.2 Color and Light

2.2.1 The Nature of Color

Aristotle seen color to be the item of a blend of light and dark colors, and that was winning conviction until 1666, Isaac Newton’s prism test was given the logical premise for the perceptive of color. Newton said that when white light cross from a prism it breaks in to seven colors and called it spectrum, and then when these colors are combined they make white light. In spite of the fact that he acknowledged that the range was ceaseless, Newton utilized the seven color names,

yellow, red, green, orange, blue, violet, and indigo for portions of the range by relationship with the seven interpretation of the melodic scale.

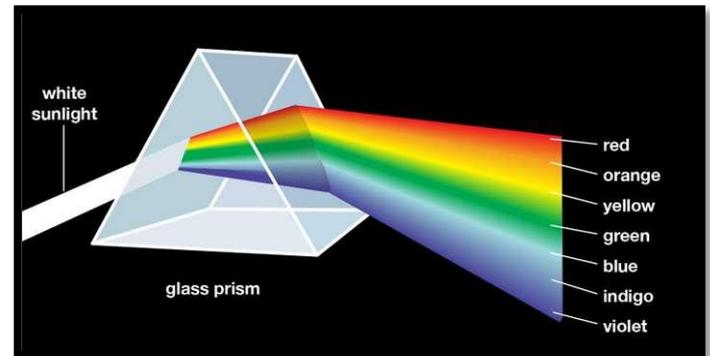


Figure 1: Showing Newton’s Prism Test

Newton illustrated that color could be a feature of light. To know color, subsequently, it is fundamental to know incredible around light. As a shape of electromagnetic rays, light has features in general with wave’s particle. It is considered as stream of miniature vitality parcels emanated at shifting frequency in a wave movement. Any ray of light has particular value of recurrence, wave-length, and vitality related with it.

Incidence means the quantity of waves transitory a settled point in space in a division of time, is commonly communicate in unit of hertz (1 HERTZ = 1 cycle/ moment). Wave-length is the space among comparing focuses of two successive waves and is regularly communicated in unit of meter for occasion, nanometer (1 NANOMETER (NM) = 10⁻⁹ meter).

The vitality of a light ray can be compare to that had by a little molecule goes at the speed of light, but that no molecule having a break mass seems move at that speed. The title photon, utilized for the littlest amount of light of any wave length, is implied to include the duality, counting in cooperation the wave and molecule distinctiveness inborn in wave a technicalities and the quantum technicalities. The power of photon is frequently communicated in unit of electron-volts

(1eV (electron volts) =1.602×10⁻¹²erg); it is straight forwardly corresponding to occurrence and contrarily corresponding to wave-length.

Light isn’t only sort of electromagnetic radiation it is, in reality, only a little section of the full electromagnetic – spectrum but it is the one frame the eye can see. Wave-lengths of light extend from almost 400 nm at violet conclusion of the spectrum to 700 nm at the red conclusion.

At shorter wave-lengths the electro-magnetic range expands to the bright radiation locale and proceeds through rays, gamma- rays, and infinite rays. Just past the red conclusion of the range are the larger wave infra-red radiation beams (which can be felt as warm), micro-waves, and radio-waves, emission of a single recurrence is called mono-chromatic. When this recurrence falls within the run of the obvious range, the color discernment created is that of drenched hue.

Range of the visible spectrum			
colour*	wavelength (nm)	frequency (10 ¹⁴ Hz)	energy (eV)
*Typical values only.			
red (limit)	700	4.29	1.77
red	650	4.62	1.91
orange	600	5.00	2.06
yellow	580	5.16	2.14
green	550	5.45	2.25
cyan	500	5.99	2.48
blue	450	6.66	2.75
violet (limit)	400	7.50	3.10

Figure 2: Range of Visible Spectrum

2.3 Color- Psychology and Its Impacts

Color psychology is based on the psychological and expressive impacts the colors have on persons in all features of life. Here are a few remarkably individual pieces to color brain explore as well as a few more approved and verified components. Be away from any doubt, that there are moreover being varieties in elucidation, meaning, and recognition between diverse societies.

2.4 Applying the Color’s Psychology in to Daily Life

Did you know that your environment may be affecting your feelings and state of intellect? Do you ever take note that assured places particularly bother you? Or those definite places are particularly unwinding and soothing? Well, there’s a great possibility that the colors in those places are performing a part. In craftsmanship treatment, color is frequently related with a person’s feelings. Color may moreover impact a person’s intellectual or material state. For case, studies have showed that a few individuals staring at the color red bring about in a prolonged heart. Speed, which at that point driven to extra adrenaline is pump into the blood flow. You’ll be able study more approximately how a Color treatment is being used and how colors and light might influence us. Here are too commonly noted mental impacts of color because it relates to two major categories: cool colors and warm colors. Warm colors such as red, orange and yellow

can start a mixture of thoughts extending from consolation and warmth to aggressive vibe and anger.

Cool colors are green, purple and green – regularly fight.



Figure 3: How Color Affects Our Body

2.5 Importance of Color in Interior Architectural Space

Color is a lot more than just a coating of paint on a facade, or an instrument of ornamentation. It is an essential element of design, and the most communicative, by the sense it conveys, and the psychological effects on the audience. Color has a vital role in bringing out the picture of interior spaces by way of combination of the colors used in the universal interior design, in furniture, and in accessories, for the formation of the character as a whole. (alnasser, H.M.F.A.A 2013)

III. RESULTS AND DISCUSSIONS

As this research is ‘case study, the methodology applied was more on gathering information through surveys, questioner, interviews and physical visits. This primary data was then compared with the review which included the psychological impacts of colors humans’ emotions and moods,

along with those suitable colors are suggested to be used in interior of residential buildings according to their impacts.

There were mainly three types of methods being used for collecting primary data:

- Collecting primary data through questioners’ surveys.
- Collecting primary data through site visits.
- Collecting primary data through interviews conducted from field experts and professionals.
- Case studies are carried out for collecting secondary data.

In gathering primary data , questioner surveys, site visits and interviews conducted from professional and field experts are conducted, in order to substantiate a sampling size data to be collected, then questioners were distributed to house owners from residential areas of Hyderabad, along with that interviews were conducted. In these three approaches important information was collected related to the context of study. After collecting primary data, secondary data was collected through literature reviews and case studies.

3.1 Adopted Methodology

OBJECTIVE #1

To study and compile perception of end users regarding colors used in their house.

To achieve first objective data is collected with the help of questionnaire survey, the questionnaire survey are carried out from the local people who are resident of different areas of Hyderabad city for achieving their perception regarding color and their impacts.

This objective covers the perception of local people of different residential areas of Hyderabad, people are totally unaware about the impacts of colors on their mood and behavior.

DO YOU THINK COLOR EFFECT YOUR FEELING?

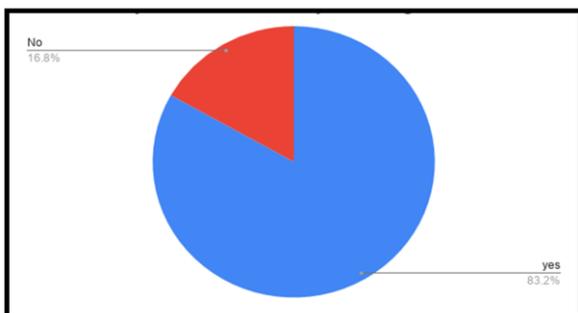


Figure 4: Showing Responses of “Do You Think Color Affects Your Feeling?”

DOES COLOR THAT ARE USED IN INTERIOR OF YOUR HOUSE EFFECTS YOUR MOOD?

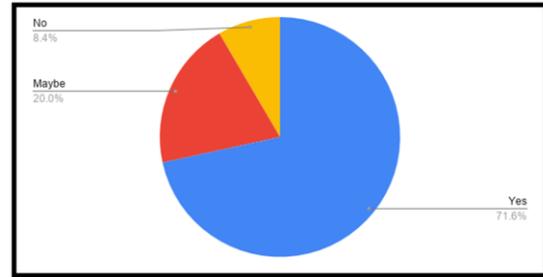


Figure 5: Showing Response of “Does Color That Is Used In Interior of Your House Affect Your Feelings?”

HAVE YOU EVER FELT ANY COLOR HAS GIVEN YOU SOOTHING EFFECT?

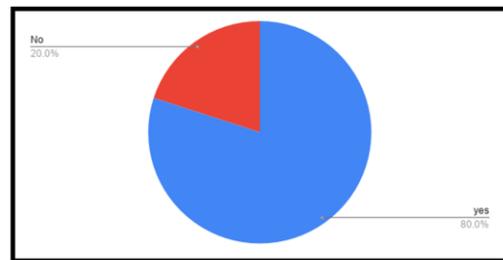


Figure 6: Showing Responses of “Have You Ever Felt Any Color Has Given You Soothing Effect?”

HAVE YOU EVER FELT ANY COLOR HAS INCREASED YOUR EXCITEMENT LEVEL OR ENERGY?

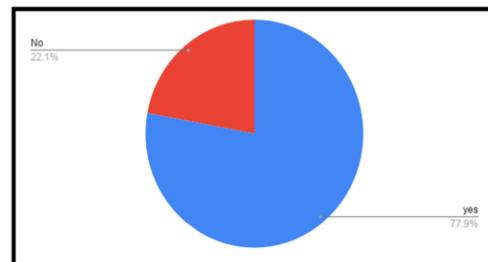


Figure 7: Showing Response of “Have You Ever Felt Any Color Has Increased Your Excitement Level or Energy

HAVE YOU CONSIDER EFFECTS OF COLORS, WHILE SELECTING THEM FOR INTERIOR OF YOUR HOUSE?

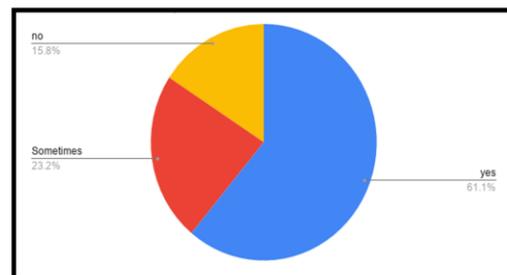


Figure 8: Showing Response of “Have You Considered Effects of Colors While Selecting Them for Interior of Your House?”

DO YOU THINK ANY COLOR CAN EFFECT YOUR SLEEP?

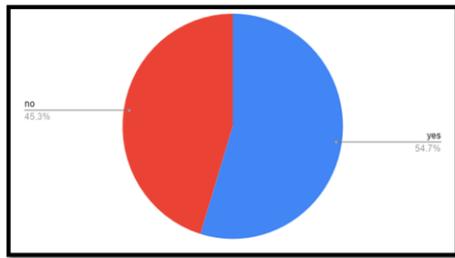


Figure 9: Showing Response of “Do You Think Any Color Can Affect Your Sleep?”

Table 1: Showing Response of Feeling Associated With Different Colors

FEELING ASSOCIATED WITH DIFFERENT COLORS						
RED	BLUE	GREEN	YELLOW	WHITE	ORANGE	PINK
TRIGGERS ENERGY	CALMNESS RELAXED	CREATIVE	CHEERY VIBRANT	PEACE PURITY	ENERGETIC	ROMANCE PASSION
61%	67.45	8.4%	62.1%	87.4%	38.9%	58%
COLDNESS	AGGRESSION	PEACEFUL	PEACEFUL	LOOSE TEMPER	HAPPY POSITIVE	HAPPY POSITIVE
21%	14.7%	78.7%	12.6%	2.1%	39%	28.4%
BOREDOM	BOREDOM	CALMNESS	LOOSE TEMPER	UNFRIENDLY	PHYSICAL WEAK	FRUSTRATED
18%	17%	12.6%	23.2%	9.5%	22.1%	12.6%

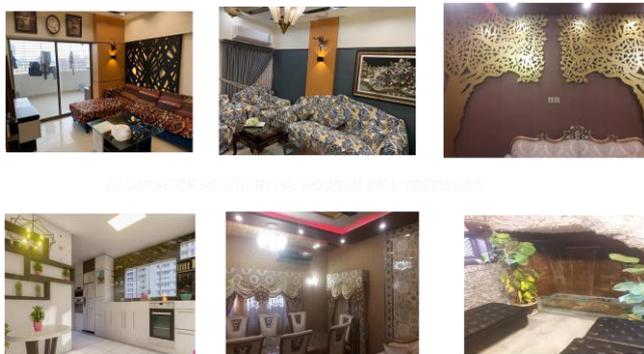


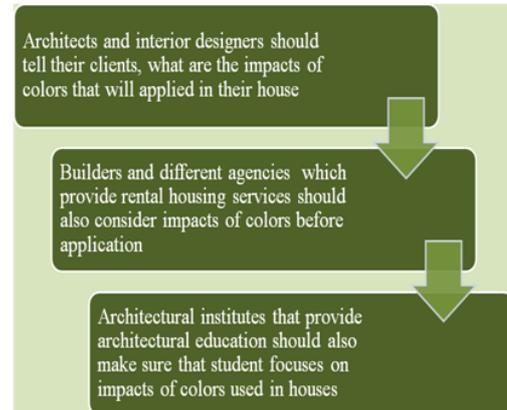
Figure 10: Glimpse of residential houses of qasimabad Hyderabad

IV. CONCLUSION

The aim of research was to know people’s perception about impacts of colors, to find out people thoughts regarding colors and their impacts.

The results of the study show that a lot of people are unaware about impacts of colors on human psychology and they have been doing wrong color selection in their houses which directly and indirectly affect their moods and psychology. This study proves that a lot of people usually go for wrong color selection without knowing their impacts.

4.1 Suggestions and Recommendation



4.2 Findings

- Most of the respondents thinks that colors have affects on their lives in different aspects; feeling, mood, behavior, energy and a lot more aspects, but they don’t have proper information regarding colors and their impacts.
- When we talk about field experts including architects, interior designers they give preference to clients demand rather than using colors according their impacts.
- People are unaware about the impacts of colors and they have been using wrong colors in their houses.
- Local people and field experts, both gives preference to the colors that are most used in market and that are more attractive rather than use them according to their uses.

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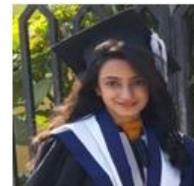
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