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The Colour Perception – In an Indoor & Outdoor Architectural Environment

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ABSTRACT: Colour is considered an integral element for an indoor and outdoor environment. It is an essential element of our environmental experience and visual perception. It is often connected to, stimulated by, light in the natural or human design environment and accompanies us in different visible ways. They are the substance of how we experience the surroundings, as humans are the centre of concern in designing the architectural environment. It affects individuals differently based upon their age, gender, culture and other biological factors. Colour is a universal visual language appreciated by all. The aim is to utilise colour as an expressive component to emphasise the building character and create unity and harmony.

KEYWORDS: Colour, Indoor, Outdoor, Perception, Design, Unity, Harmony.

INTRODUCTION

Colours are an outstanding feature that changes the point of view that attracts us from a design perspective, in which both Indoor & Outdoor classification makes a great function.

It is the visual experience that unintentionally affects individual emotions and functions. The human colour response mainly focuses on the understanding of behavioural aspects controlled by the brain. When designers consider colour, they build a mood inside a space that tells a story and gives each individual an emotional impact. Colour is an essential design element that enhances environmental, aesthetic qualities.

The assumption that the right colour will have a positive effect on the environment. Besides, individual colour preference is associated with the emotional response to the environment. To create a suitable environment, it is also essential to consider how colour can influence human perceptions and behaviours. Colour is a tiny part of unrestricted visible radiation from around 400 to 700 nanometres in human eyes.

The sense of sight connects to the human vision of colour, which is an essential tool in perceiving the surrounding environment. It offers exciting fact about its colours, phenomena and shapes. A person receives about 80% of the information visually from the environment.

Environmental Element Colour

Colour is far more than an aesthetic statement: it provides life and preserves life. It is part of the living and experiencing conditions of individuals. In addition to other sensory perceptions, people orientate and understand through visual messages according to optical signals. It makes colour important to the context and human connection with the world. It makes colour vitally crucial to the meaning of the environment and human interaction with it. We also have a cheerful colour relationship with each other, and when we do not actively notice, the colours influence us and our emotional world. “Colour exists in itself; it connects things and connects things with people.” (Pieter Uyttenhoven).

Wider Considerate of Colour

The colour is light, unity and harmony, but also mental balance, excitement and comfort. Colours in design are necessary to highlight, embellish, illuminate and transmit sensations and comfort and to separate spaces.

Colour is an expressive factor of architecture, emphasising a building's character and promoting unity and harmony or consciously differentiate between focus and highlight. It will improve the way people respond to their environment and enhance the sense (Radwan, 2015).

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Subtractive and Additive Colour Systems

Scientific colour analysis is an additive and subtractive colouring system. Any part of the system is equally important, but it is the artist's approach to manipulate the brain's senses through subtractive colour (Colour Matters). Subtractive colour is wavelengths that are absorbed and reflected. They produce black as colours when added together. Additive colour comes from a source to create light. They make white as colours when added together.

Architect and colours perception

Le Corbusier (1887-1965) recognised as a leading architect of the 20th century. Until now, the work of Le Corbusier has influenced architectural planning. Colours are crucial for Le Corbusier in construction and design format. Inspired by nature's adjusted colours, Le Corbusier has solid and aesthetically determines colours in his Polychrome architectural perspective.

The variety of colours, which Le Corbusier uses to identify additional colours, depends on rehabilitating those specific colours. They are reliably naturally harmonic, consolidated significantly, and, right up 'til the present time, have been the significant aftereffect of his experience as an architect. "Every one of us, as per our taste and responses, support one or more of the commanding plans of colours. Every person is drawn towards some specific harmony that appears to unite with his inward thoughts. The common sense trouble is to show colours in a manner that the individual can recognise his particular sympathy," and that is the reason behind inventing coloured keyboards. (Le Corbusier).

RESULTS

What is the thing we firstly notice in indoor Spaces?
Colour - 11%
Light - 20%
Form (Shape + Size) - 32%
Furniture - 11%
Decoration - 25%
Although the colour was not the first thing people noticed, it impacts the overall form and found in light, decoration and Furniture.

How colour has an impact on us as designers as it creates an indoor visual experience
1. Define direction and circulation.
2. Develops a mood and storyline.
3. Establishes a connection between the outdoor environment and the indoor spaces.

DISCUSSION

Architectural choices of colour have a significant effect on how people see a building, walk and occupy it every day. Many contemporary architects seem to see colour as a distraction, preferring to focus on form, structure and programmed when conceptualising their project. The colour impression is essential to create a mood that facilitates the functioning of a space.

Colour and light are the two most critical issues in building designs. In any case, It has given less significance than should be expected in any event from the perspective of architectural design. The presentation of coloured dots is as essential a satisfaction during the road through life. It seems to be a neutral natural habitat; it is like a rainbow in the heavens, which has motivated the area.

Colour is a part of our visual observation identified by the way our eyes see the light. These results are separated, and we render them red, blue, yellow and so on. In selecting the materials used to design a building, designers are using colour. For example, using warm and coloured cement instead of a frosty dark base or using a brownish block rather than conventional red, these paint choices may be completely discreet. The designer must consider the colour effect of each feature of a building, from earthy colours for the specific materials of construction, such as granite, wood, stone and block, to an extensive selection of paint, entrance, window and laminate usable colours. The architectural sketches and test plates, once selected, inform the contractor precisely what colour

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construction materials used when constructing a structure. "With each specific building item, it is the unconstrained passionate response that is of significance to us."(Lindstrom 1987).

We shift from a natural architectural design, grey, brown, to one with such vibrant colours. We need not be hesitant to use cheerful colours, which modify the city's visual advancement, but we need to know how we can use them; the places and areas in which we use them can also impact them incredibly.

The colour perception being affected by indirect light reflections caused by the three-dimensional context plays a significant but varying role in the indoor and outdoor environments (Bloj, Kersten, & Hurlbert, 1999).

Light intensity, surface reflection and surrounding objects play a factor in how colour is perceived. The interior space affects the perception of colour directly through artificial lighting. "The colour rending index (CRI) was developed to describe how well artificial light sources render colours compared with natural light" colour is viewed depending on the sense of space and should consider when creating a colour scheme.

“Colour features and follow the changes of the emotions.” - Pablo Picasso.

CONCLUSION

Colour is a powerful means of expression for architects, and they can emphasise the structure of the building and create a unique architectural composition. The use of appropriate building materials allows an even better and more effective presentation of the building body, creating a unique visual effect.
Consequently, good colour design requires keen insight, sound knowledge of colours meaning and effect, professional competence in the use of colour in architecture and interior design, plus a holistic conceptual approach, awareness, and creative courage. It also requires a distinct sense of elegance, culture, design, and material.
“Colour is the first thing you notice and the last thing you leave with.” (Portillo, p.1)

Colour is used according to the planner's desires to highlight and add a specific feature to a particular room. The designers have at their disposal a wide variety of different coloured building materials that represent current trends. The technological development and the introduction of modern, multicoloured building materials meant that architects' creativity was unlimited and evident in the newly designed buildings.
Usually, colours add lightness to enlarge or reduce the space visually. The facility, designed for children and fun games, will have many colours, while the monumental and heavy architecture will fill with subdued and soft colours. In the interior, colour helps to highlight the outline and architectural divisions. Once the correct colour has chosen, space may optically expand or reduced and condensed or extended. For architects, colour is a powerful means of speech since it enables the architects to emphasise and create a unique architectural composition. Therefore, it is inevitable that there is evidence that there is an unexplainable relationship between material, light, and colour.

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