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Determination of Color Preferences and Trend Colors in Hotel Room Interior Design

Nilay Özsavaş Uluçay
Bodrum Faculty of Fine Arts, Muğla Sıtkı Koçman University, Muğla, Turkey
* Corresponding author e-mail: nozsavas@gmail.com
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Abstract

Buildings and environmental colors create differences in perception, both psychologically and physically. Colors interact with and have an impact on the form, space components, surroundings, materials textures, space lighting, the size of the surfaces, and the function and aesthetics of the space. Color preference varies according to personality traits, age and gender, habits and experiences, fashion, and style. The research is aimed to determine the color preferences and trends in hotel interior designs. Many hotel projects are designed and completed throughout the world every year. In this context, project designs awarded in international competitions were selected. To collect the data for the study, details of award-winning hotel interior designs available through competition websites are reviewed and the Adobe Color analytical tool is employed to characterize the color schemes reflected in the designs. Adobe Color is more successful than other tools in creating color schemes, such as the color wheel, gradient extraction, and theme extraction, suitable for all color selection methods, including colorful, bright, muted, deep, and dark options. As a result of this study, based on the designs awarded in 2022, it was determined that blue, red, and green colors were most frequently used, respectively. Furthermore, the data suggest that all colors were used in pastel tones, with light shades of blue mixed with different grays being used more frequently, while red and green generally were used in darker tones. The results were significantly correlated with the theoretical research and studies on user preferences.

Keywords

Color preferences, Color scheme, Hotel rooms, Interior design, Trend colors

1. Introduction

Perception is acquiring information about the environment from the environment (Lang, 1987). The perception process, defined as the comprehension of sensation, consists of a system that works with the sense organs and the mind's comprehension. In acquiring information from the environment, the most developed and dominant sense is vision. Visual perception is the transformation of sensory information from the environment into a meaningful whole at the end of a mental process (Goldstein, 2007; McKim, 1980). As part of the visual

system and visual perception, light is necessary. Light, in combination with color, ensures the correct perception of objects. Color is perceived with three basic properties: hue, colorfulness, and brightness (Hunt & Pointer, 2011). Furthermore, color perception facilitates the differentiation of objects from the environment and is important for remembering and identifying objects (Tanaka & Presnell, 1999). Perception occurs not only with the surface but also with the immediate environment in which the object is located (Snowden et al., 2006). The colors of nearby surfaces and other elements reflect on each other and create an effect, indicating that the type, hue, and saturation of colors play an active role in perception. Color can create psychological and physical differences in the perception of space and its features such as perception and separation of objects (Uluçay, 2019, p. 132). Color, along with its psychological and physical effects on the visual perception process and the separation of objects, has an important place in our lives and is related to every individual as much as to every field. For this reason, color perception, psychology, and color preferences vary depending on multiple variables.

Research on the study of color preferences has a long history. The literature indicates that there is a certain amount of agreement between the color preferences of people (Eysenck, 1941) and the role of personal and cultural factors in color preferences have been examined (Johnson, 1944). Guilford and Smith (1959) reported values of colors for people of the same and different sexes were consistent and that affective value is positively related to brightness and saturation. The relative effects of hue, brightness, and saturation on color pleasantness was explored by Smets (1982). Based on many studies examining color preferences, criteria affecting color selection have emerged. Color preferences may vary according to personality traits, age and gender, habits and experiences, fashion and style. These studies found that a range of individual factors, including personality characteristics, gender, age, and cultural background, influences color preferences. Studies also have found that individuals tend to prefer colors that match their mood or emotional state and that color preferences can be influenced by contexts, such as the purpose of the object or the setting in which it is used (Ou et al., 2004; Hulbert & Ling, 2007). In addition, according to Palmer and Schloss (2010), people like the colors associated with the objects they like and vice versa. Ecological valence theory provides a plausible, comprehensive causal explanation of color preferences.

In this context, four main issues emerge: personality traits, age and gender, habits and experiences, fashion and style. Although many studies have been conducted on color preferences, they have yet to determine color preferences and trend colors over existing designs. In this context, this research aimed to address the issue of fashion and style and determine the new color preferences and trends in hotel interior designs through existing designs.

1.1 Color Perception in the Interior Design

Since color has a different stimulus effect on human psychology, it also has different effects on the perception of space. Therefore, it is necessary to think in a typical system of the features that create and affect the space, such as the use of color in the space and the effects of color, form, and material. While interiors are primarily structured with floors, walls, and ceilings that create their physical boundaries, they are perceived together with furniture and other elements. In this case, color perception and preferences can be associated with object color preferences. In evaluating the differences in color preferences, it is seen that the preferences differ according to the context and the general color preferences are different from the object color preferences (Jonauskaite et al., 2016). The color hues and saturations used on surfaces can make a difference in the perception of space. Schloss et al. (2013) found that differences in saturation and lightness

cause object color preferences; for most objects, the preferences increase as the colors get dark, but the preference for wall and trim color increase as the colors get light, and there also is a relationship with function. The color and texture of the surfaces in the designed space, their effect on each other, and the general harmony, change the perception of the space. The interaction of colors with each other, the size used, the place where it is applied, the contiguity, the light, and the effect of the color used with the textile, change (Tate, 1987, p. 152). Color in interiors becomes effective with the form, space components, surroundings, the texture of the materials used (glossy-matte, rough-smooth), the space's lighting, the size of the surfaces, and the function and aesthetics of the space. In light of these interactions, different perceptions can be formed consciously according to the effective creation of color schemes in the interior and the way they are used. A good designer considers color preferences by taking these versatile variables into account.

As in all design areas, successfully applied color schemes can reduce the adverse effects on people, provide different perceptions, and transform them into a structure suitable for the function. Mahnke (1996, pp. 24-25) emphasizes that under-stimulation can lead to restlessness, excessive emotional response, and difficulty in concentration. Furthermore, the suggestions of white- and neutral-colored environments are far from having a psychologically neutral effect and that over-stimulated environments distract and tire people. Intense colors, visual patterns, and high brightness can impair productivity in workspaces. In other words, an under-stimulated environment can create psychological and physiologically adverse effects, as is the case for an over-stimulated environment.

Numerous studies have been conducted on color preferences in various spaces, taking into account their specific functions. For instance, the colors of office interiors have been found to affect the mood and productivity of workers (Kwallek et al., 1988), the arousal dimension of color has been shown to impact retail outcomes (Bellizzi & Hite, 1992), while in hospital interior design, different wall colors in patient rooms have been found to influence average anxiety levels (Edge, 2003) and color preferences are known to have a beneficial effect on personnel rooms in hospitals (Dalke et al., 2006). Additionally, age, gender, and educational level have been associated with differences in color preferences for residential settings (Manav, 2007) and the wall colors of cafes/restaurants affect the mood and cognitive performances of different genders and age groups (Yildirim et al., 2007). Further, colors of the educational interiors have been found to impact student behavior within the physical learning environment and the appropriate use of color for inclusive classroom design affects student attention, behavior, and achievement (Gaines & Curry, 2011). The studies show that color plays a crucial role in interior design and affects mood, perception, and behavior. Color arrangements and preferences can vary depending on the location, physical conditions, size and shape of the space, the purpose of the area, and user preferences.

Furthermore, it is possible for a color to be fashionable for many design areas simultaneously and to form a trend color scheme. This study focuses on exploring color schemes and preferences in hotel interior design.

1.2 Criteria and Color Preferences Affecting Hotel Design

In interior design, the meanings of colors, their psychological effects, usage areas, and connotations are used to create a spatial identity. In this context, colors are used in accordance with the aesthetics of the interior, based on the functions and physical characteristics of the buildings. Using the appropriate colors ensures that spaces are perceived correctly, designed according to their functions, and livable. Pile (1997: 41) states that although many carefully developed color systems exist, no existing system is suitable for interior

design. An experienced interior designer may choose to create a new color scheme instead of a specific color scheme and this new scheme usually is in accordance with a known scheme (Pile, 1997, p. 78). As a result, apart from other factors such as color preferences, user and space features, the interaction of colors with each other (similar-complementary), the status of colors relative to each other (near-far, warm-cold), the form used, and their amount on the surface are considered together based on the system.

Regarding hotel designs, hotels have accommodations, recreation, social areas, dining areas, and many places with different functions. Even if planned according to a single concept, areas are evaluated according to their functions. Different design concepts and color schemes can sometimes be created for different room types. Culture is one of the most important factors affecting interior design. Some regions are remarkable in terms of cultural tourism. Cultural features can be attractive to the user and these features are emphasized in the design. By determining the features that add uniqueness to a destination, the advantage of appealing to different customer groups can be achieved (Yu et al., 2014). In addition, the climate of the region where the hotel is located affects the color arrangements. The use of warm colors in the hotel located in a region with a cold climate is important in terms of space comfort. Ćurčić et al. (2019, pp. 871) state that using warm, cold, or neutral colors may depend on climate, orientation, and activity level. Warm colors are used more in cold climates and cold tones are used more in hot climate regions. User preferences regarding space, thermal comfort, and psychological impact also develop in this direction. In other words, just as a single design concept can dominate the building, but different concepts can be determined in different sections color schemes can be selected according to climatic conditions, local characteristics, and cultural texture.

When designing a space for accommodation that welcomes a wide range of people, it is important to approach the design from multiple perspectives. The entrance, lobby, and reception areas of hotels should have an inviting design, incorporating warm and welcoming colors, while the color selections for dining areas should be applied based on restaurant design criteria and the pathways to guest rooms should be made more visually interesting by using warm saturated colors (Pile, 1997, pp. 163). According to Jusko (1991), the hotel guest room is the key factor that keeps customers preferring the hotel again, regardless of the lobby or restaurant's attractiveness. Therefore, the hotel guest room, which is the basic product of a hotel, is the primary determinant of the accommodation satisfaction for the guests. "Utilization of the guestroom signifies the criticality of the accommodation component in the hotel product and hence its importance in terms of its conceptualization and operation" (Ogle, 2009). With this approach, design decisions that can appeal to general preferences should be made and color schemes should be determined accordingly, to ensure that the consumers are encouraged to consider a return visit.

Additionally, for a hotel to sustain its commercial success, prioritizing the preferences of the guests is crucial. Studies indicate that the physical environment plays an important role in shaping hotel customer behavior (Mattila & Wirtz, 2001; Lin, 2004; Lin, 2009; Clemes et al., 2009; Clemes et al., 2011; Suh et al., 2015; Emir, 2016). Furthermore, when discussing user behavior, the concept of "servicescape", as defined by Bitner (1992), provides a crucial analytical framework. The concept of servicescapes consists of elements such as style, music, scent, layout, signage, lighting, furniture, functionality, air quality, and color scheme (Bitner, 1992; Lin, 2004). In other words, it is seen that tangible and intangible environmental features affect the cognitive, emotional and psychological purchasing behavior of users. In this context, color preferences, along with many elements in hotel designs, are directly related to the preferability of the hotel. Extensive research has been conducted on color preferences in hotel design, contributing to the literature on this topic. Lin (2009) discovered that the combined effect of color and music of the hotel bars plays an essential role in customer satisfaction.

Bogicevic et al. (2018) examined the effect of people having different demographic characteristics, such as age and gender, on hotel room design preferences and willingness to stay and found that preferences vary according to age and gender. While male guests prefer rooms designed with masculine colors, female guests prefer both masculine and feminine colors. Lee et al. (2018) studied the influence of hotel room color on emotional wellness and suggested that cool color arrangements, especially green, are preferable. Siamionava et al. (2018) explored the relationship between color and hotel room perception and concluded that the arousal levels of red hotel rooms were higher, but the participants generally had a preference to stay in blue hotel rooms. Kuo and Zhang (2021) revealed the relationship between hotel room color and consumer satisfaction, showing that a cool color scheme had a more positive attitude and higher booking rate than a warm color scheme. Also,Mehrotra and Misra (2021) examined the most preferred color in guest rooms and concluded that most participants prefered neutral colors, and they felt most comfortable with blue among the primary colors. This result supports the idea that cold color schemes are frequently preferred in hotel rooms, as noted in other studies. On the other hand, Bilal et al. (2021) state that the color gray evoked displeasure, while the colors blue and yellow produced positive behavior in terms of customer loyalty. In the study by Xu et al. (2022), which includes a Virtual Reality (VR) experiment, it was concluded that yellow created a pleasant effect in hotel rooms, gray calms, and blue created a neutral effect. As mentioned earlier, color preferences may differ based on various factors, such as age and gender, habits and experiences, fashion and style. However, studies have not been conducted with respect to determining color trends over existing designs. In addition, fashion and style are shown as a set of variables that affect color preferences. For instance, while vibrant colors may be popular in one era's interior design, another period may favor dark colors with classical designs. This highlights the role of fashion in shaping color preferences in a given space. The impact of different period styles and movements further emphasizes this point. Therefore, this article focuses on the research topic of determining color trends in hotel designs, taking into account the influence of fashion and style.

2. Materials And Methods

The primary research objective of this article is to examine color preferences and trend colors in hotel interior designs used in award-winning designs from design competitions and determine whether there is a meaningful relationship between the colors used. Firstly, information was obtained about color perception, the structure of color preferences, and how color preferences vary in interior design. Afterward, studies on color preferences in hotel design and the relationship with fashion and style, which is one of the reasons for color preferences, were investigated. In this context, examples of projects that have proven themselves in design competitions were examined as case studies of trending colors, with particular focus on determining trends according to the period.

A literature review was done regarding color preferences and qualitative research was used as the study's methodology. The data collected were analyzed within a theoretical framework to determine color preferences and trends in hotel design based on the case studies examined. Qualitative research involves the utilization of qualitative data collection methods. It follows a realistic and holistic approach to reveal perceptions and events in their natural environment (Yıldırım & Şimşek, 2005, pp. 19). The research model aimed to describe the existing situation, so the general survey model was used. The color preferences and trends of the selected samples were tried to be determined. This study aims to investigate whether common colors are preferred in a specific period and to determine the color preferences and trends in the selected time interval.

2.1 Color Palettes and Color Schemes

According to research, in the first 20 seconds of observing an object, color information constitutes 80% of the whole impression. Therefore, as one of the most intuitive elements, color can affect people visually (Wang, 2004). Creating new color schemes to address this effect is an essential supporting feature of innovative design. Conducting research is crucial in identifying if there are any shared trends in hotel design. For this reason, the color preferences that reveal the color palette and color scheme design character were investigated within the scope of this study and the colors were determined through the visuals.

Many studies have been carried out in many fields to create color palettes. These studies generally are planned to increase design efficiency and create more practical color schemes. They emphasize color tone selection and processing based on saturation (Morse et al., 2007), investigate the statistics-based interactive evolutionary computation (IEC) method (Ishibashi & Miyata, 2015), and use an interactive tool containing harmonious combinations in hue, saturation, and lightness (Hu et al., 2014). As the color palettes of the finished projects examined in this study already have been implemented, the color selection process described herein is made from the photographs. Numerous studies have been done on the colors in digital images; some define color image quantization as a process of representing the color gamut and computing the color space (Heckbert, 1982, pp. 299). The color image quantization task is broken into four phases:

1) Sampling the original image for color statistics
2) Choosing a colormap based on the color statistics
3) Mapping original colors to their nearest neighbors in the colormap
4) Quantizing and redrawing the original image (with optional dither) (Heckbert, 1982, pp. 297).

The process of creating a color scheme from an image has been utilized for a long time (Heckbert, 1982; Wu, 1992; ; Braquelaire & Brun, 1997). Different stages and methods of color image quantization have been developed in these studies. For this study, creating a color scheme through the images is necessary. Thus, using the information and codes of the colors in the images will help the designers to create suitable color schemes. Color schemes can be created through some vector and pixel-based digital visual processing programs, but there also are practical applications that can create a color scheme from an image uploaded online (Adobe Color, Canva, Colr, Degraeve). Among these applications, Adobe Color can provide more detailed and accurate information and it has been found to be more successful in terms of creating different color schemes such as the color wheel, gradient extraction, and theme extraction, suitable for all color selection methods such as colorful, bright, muted, deep, and dark options.

Creating image-based color schemes involves selecting colors from an image and using them as the basis for a color palette. The following steps were conducted for the case study selection and analysis:

- Photographs of the hotel interior design that had won awards in design competitions were examined and hotel designs with images suitable for the determination of color palettes were selected.
- The relevant literature on the use of color selection tools was reviewed and experiments were conducted using the various tools mentioned above. These tools allow one to select a color from the image and then provide its hex code or RGB values.
- Dominant colors, hues for the color scheme, and secondary color schemes in the image were obtained with these tools. A color palette was created from the selected colors.

3. Results

This study examined trendy color palettes and color preferences based on existing hotel designs. Individuals' color preferences have been questioned in the literature, but their relationship with the projects has yet to be examined. Apart from preferences, fashion and style can lead to common color preferences at different times. Hotel projects have a composite structure, such as resting, dining, and social areas. Within the scope of this study, the colors used in hotel rooms were investigated and it is examined whether the color preferences were consistent with those reported in the literature. Since there also are suite rooms consisting of several sections, the study was limited to colors used in sleeping areas of bedrooms. Thus, it is aimed to reveal whether there was a general trend in color preferences and their relations with color preferences in the literature. Award-winning hotel interior designs were chosen as case studies. The design competitions, which were international and had hotel interior design categories for the year 2022, were examined, and the award-winning projects were discussed. In the research conducted within the scope of the study, the results of the A'Design Award & Competition, Commercial Interior Design (CID) Awards 2022, IIDA 2022 Global Excellence Awards, LOOP Design Awards, SBID International Design Awards, The International Hotel & Property Awards and World Architecture Festival were examined. Table 1 gives the categories, sub-categories, and the number of awarded designs in the hotel category.

Table 1. Interior Design Award Information for Included Case Studies

Competition	Number of the categories/ sub-categories	Number of awards in hotel category
A' Design Award & Competition	100/8	11
Commercial Interior Design Awards 2022	7	1
IIDA 2022 Global Excellence Awards	15	2
LOOP Design Awards	12	1
SBID International Design Awards	3/28	15
The International Hotel & Property Awards	5/22	29
World Architecture Festival	4	9
TOTAL	**146/58**	**68**

There were sub-categories (total of 58) in some of the competitions but a total of 146 categories were included in the awards, with 68 hotel projects receiving awards. To create a color scheme, hotels with a sufficient number of interior visuals suitable for the scheme were selected. Attention was paid to at least one hotel room image that can describe the interior of these projects well (no detailed photographs or exterior spaces). In selecting the case studies, each was required to appear on the competition websites and obtain an award. The room images were downloaded from the websites. As a result of all the evaluations and examinations, diagrams of the visuals for 22 hotel rooms were drawn.

Designs eligible for evaluation received awards in the following categories: 13 of them were in the SBID International Design Awards, Hotel Bedroom & Suites Design, 5 of them were in The International Hotel & Property Awards, Hotel Under 50 Rooms Europe, Hotel Under 200 Rooms Asia Pacific and Europe, Hotel Suite Global, Design Et Al Global Project, 3 of them in the A'Design Award & Competition Interior Space and Exhibition Design, and 1 of them in the World Architecture Festival INSIDE: Hotels. It is seen that hotel concepts were used for different purposes such as city hotels that highlight the local architectural texture, hotels with sea

and nature views that vary depending on the summer or winter seasons, and business hotels. In addition, hotels were located in different countries and geographical regions, such as Canada, China, Czech Republic, Germany, Israel, Italy, Kuwait, Maldives, New Zealand, Poland, Turkey, United Arab Emirates, United Kingdom, and the United States of America. The following tables (Tables 2-6) were created based on the above criteria and evaluations for hotel designs awarded in the competitions for 2022.Mostly neutral and brown tones were in common use and there were examples where a single color was added (dominant color or similar color schemes). In this context, Table 2 was classified according to the use of one color together with neutral colors. It is seen from Table 2 that blue was preferred in 7 hotel rooms, red was preferred in 3 hotel rooms, and green was preferred in 2 hotel rooms.

Table 2. Color schemes of rooms using blue, red and green colors

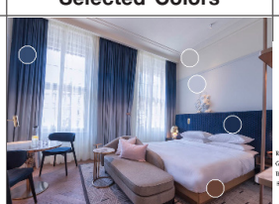
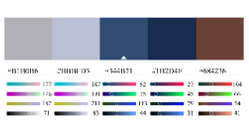
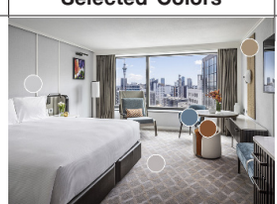
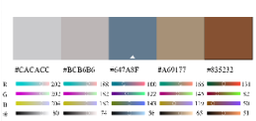
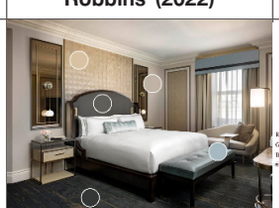
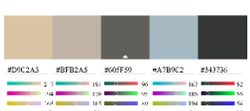
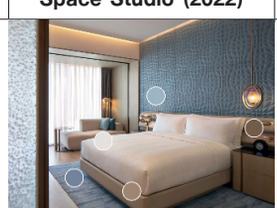
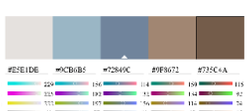
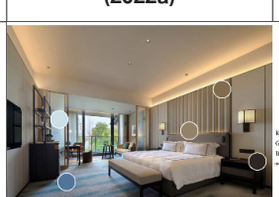
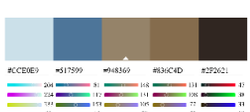
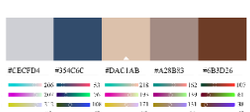
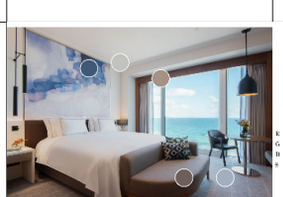
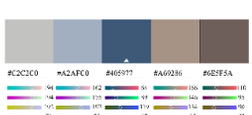
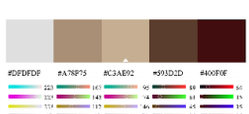
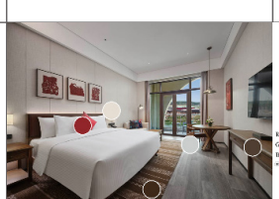
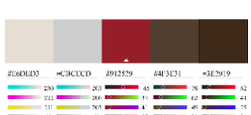
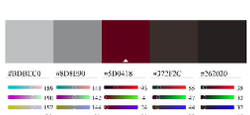
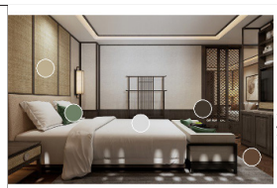
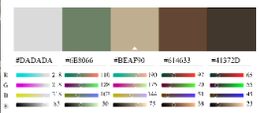
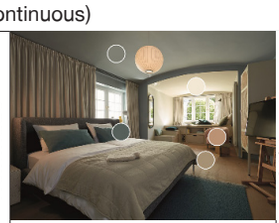
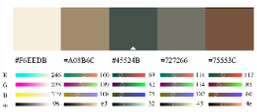
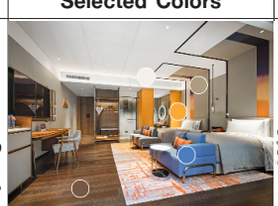
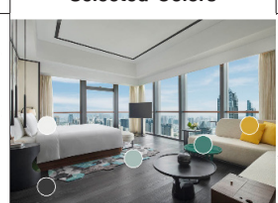
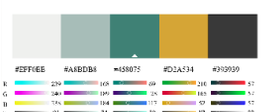
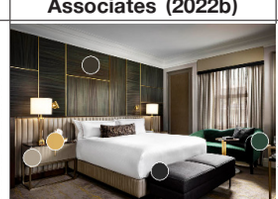
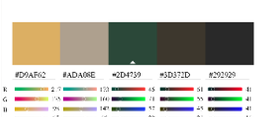
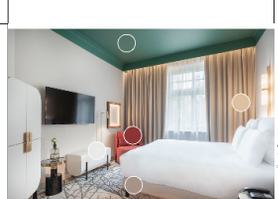
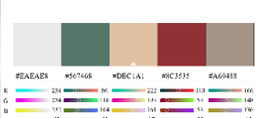
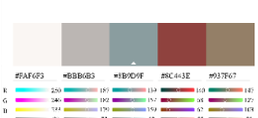
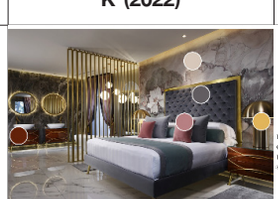
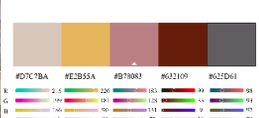
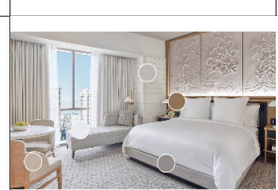
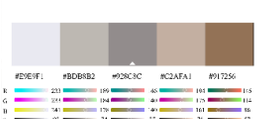
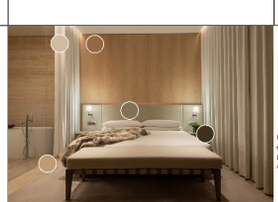
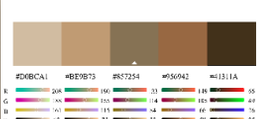
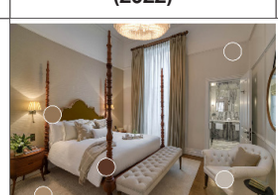
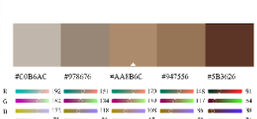
	Selected Colors	Color Scheme		Selected Colors	Color Scheme
Andaz Prague	 Robbins (2022)		Cordis Auckland, Pinnacle Tower	 Space Studio (2022)	
Hays Suite at Fairmont Château Laurier	 CHIL Interior Design (2022a)		Hilton Shenzhen World Exhibition Center	 Yang & Associates Group (2021)	
Nanhu Hotel Hospitality	 Luo et al. (2022)		St Regis Kuwait	Kristina Zanic Consultants (2022)	
The David Kempinski Tel Aviv	 Ara Design (2022)		Hard Rock New York Hotel Rock Star Suite	Jeffrey Beers International (2022)	
Wanda Realm Yan'an	 Wanda Hotel Design Institute (2022a)		Wanda Vista Guilin	Wanda Hotel Design Institute (2022b)	

Table 2. Color schemes of rooms using blue, red and green colors (continuous)

Scholars Xuntang Hotel			Stilwerk Hotel Heimhude		
Jiang et al. (2021)			Stilwerk Hotels (2022)		

In Table 3, there are examples where split/double or triadic complementary colors were selected, and samples were designed with an utterly monochromatic color scheme. When the table is examined, it is seen that complementary color schemes or multi-colored choices were preferred in 7 hotel rooms, and monochromatic color schemes were preferred in 3 hotel rooms.

Table 3. Color schemes of rooms using complementary and monochromatic colors

	Selected Colors	Color Scheme		Selected Colors	Color Scheme
Canopy by Hilton Xi'an Qujiang Hotel			Hirsch Bedner Associates (2022a)		
	Hotel Indigo Suzhou Grand Canal			Hirsch Bedner Associates (2022b)	
Karsh Suite at Fairmont Château Laurier			Karsh Suite at Fairmont Château Laurier		
	Autoban (2022)			CHIL Interior Design (2022b)	
Mgallery Rezydent Hotel			Radisson Collection Hotel Bodrum		
	Tremend Sp. z o. o. Sp. K (2022)			Metex Studio Erk (2021)	
Riva Del Sole Resort & Spa			Four Seasons New Orleans		
	Khoury (2022)			Bill Rooney Studio, Inc (2022)	
The Dubai EDITION			The Adria		
	LW Design (2022)			Hirsch Bedner Associates (2022c)	

Through application projects, a spectrum chart was created for the three most preferred colors, blue, red, and green, for award-winning hotel rooms in 2022. Blue was used in 14 different tones in 9 hotels in total, red was used in 7 different tones in 7 hotels, and green was used in 7 different tones in 6 hotels. In these color tones, it is seen that the colors were not used in their brightest form, but rather in pastel tones. It is seen that light shades of blue mixed with different grays were used more frequently, while red and green were used in pastel tones but generally in darker tones. The color transitions of the three most frequently used colors and the HEX, RGB, HSB, CMYK, and LAB codes for the hues of the colors are tabulated below (Tables 4, 5, 6).

Table 4. Blue color information used in hotel room designs

	HEX	RGB	HSB	CMYK	LAB
	#CCE0E9	204, 224, 233	199, 12, 91	12, 4, 0, 9	88, -5, -7
	#A7B9C3	167, 185, 195	201, 14, 76	14, 5, 0, 24	74, -4, -7
	#9CB6C5	156, 182, 197	202, 21, 77	21, 8, 0, 23	73, -6, -11
	#8B9D9F	139, 157, 159	186, 13, 62	13, 1, 0, 38	63, -6, -3
	#BABFD3	186, 191, 211	228, 12, 83	12, 9, 0, 17	78, 2, -11
	#A2AFC0	162, 175, 192	214, 16, 75	16, 9, 0, 25	71, -1, -10
	#72849C	114, 132, 156	214, 27, 61	27, 15, 0, 39	55, -1, -15
	#4C7DBF	76, 125, 191	214, 60, 75	60, 35, 0, 25	52, 4, -40
	#517599	81, 117, 153	210, 47, 60	47, 24, 0, 40	48, -3, -23
	#647A8F	100, 122, 143	209, 30, 56	30, 15, 0, 44	50, -3, -14
	#405977	64, 89, 119	213, 46, 47	46, 25, 0, 53	37, -1, -20
	#354C6C	53, 76, 108	215, 51, 42	51, 30, 0, 58	32, 1, -21
	#344C72	52, 76, 114	217, 54, 45	54, 33, 0, 55	32, 3, -25
	#1B2E4F	27, 46, 79	218, 66, 31	66, 42, 0, 69	19, 4, -23

Table 5. Red color information used in hotel room designs

	HEX	RGB	HSB	CMYK	LAB
	#E5BAB1	229, 186, 177	10, 23, 90	0, 19, 23, 10	79, 14, 10
	#B78083	183, 128, 131	357, 30, 72	0, 30, 28, 28	59, 22, 7
	#8D443E	141, 68, 62	5, 56, 55	0, 52, 56, 45	38, 30, 18
	#8D3534	141, 53, 52	1, 63, 55	0, 62, 63, 45	35, 37, 20
	#92252A	146, 37, 42	357, 75, 57	0, 75, 71, 43	33, 45, 24
	#5D0418	93, 4, 24	347, 96, 36	0, 96, 74, 64	18, 38, 15
	#410F10	65, 15, 16	359, 77, 25	0, 77, 75, 75	13, 24, 12

Table 6. Green color information used in hotel room designs

	HEX	RGB	HSB	CMYK	LAB
	#A8BDB8	168, 189, 184	166, 11, 74	11, 0, 3, 26	75, -8, 0
	#6A8E80	106, 142, 128	157, 25, 56	25, 0, 10, 44	56, -16, 3
	#567468	86, 116, 104	156, 26, 45	26, 0, 10, 55	46, -14, 3
	#448076	68, 128, 118	170, 47, 50	47, 0, 8, 50	49, -22, -1
	#6E8066	110, 128, 102	102, 20, 50	14, 0, 20, 50	52, -12, 12
	#2D4839	45, 72, 57	147, 37, 28	37, 0, 21, 72	28, -14, 6
	#45524B	69, 82, 75	148, 16, 32	16, 0, 9, 68	34, -7, 2

Based on the above analysis, the most frequently used color was blue and its tones. There is a strong correspondence in color schemes and these results also are consistent with the literature. Apart from the primary colors and secondary colors in the color wheel, brown and neutral tones were indispensable in the structure of room designs. Considering the calming psychological effects of blue, it is common for it to be preferred in sleeping rooms. Still, according to the hotel concept, in some cases, its effect is balanced with warm colors; in some cases, the feeling of coolness is prioritized with white and light colors.

4. Discussion And Conclusion

Color creates psychological and physical differences in the perception of space; and color perception, color psychology, and color preferences depend on different variables. A number of studies have shown that color preferences vary according to personality characteristics, age and gender, habits and experiences, fashion and style. In addition to emotional states, color preferences can be affected according to the purpose of the object or the environment in which it is used (Ou et al., 2004; Hurlbert & Ling, 2007). However, the literature does not include research on color preferences, analysis of color preferences, and trend colors associated with existing designs. Thus, the study aimed to determine color preferences and trends in hotel interior designs in the context of fashion and style. For interior design, color has different effects on the perception of space, and many variables should be adequately planned while designing the space. Situations such as the color of the elements in the space, their effect on each other, and the size of their use, create perception differences. Color arrangements may vary according to the physical conditions of the space, such as size and shape, the purpose of use, and user preferences. Designers create color schemes for the psychological effect and space perception desired to be achieved according to the function of the space and it is also possible for any color scheme to be fashionable for different periods.

Especially in spaces used in marketing and commerce, as exemplified by the hotel designs in this study, materials and color schemes that emphasize cultural characteristics can be used if authentic texture is one of the reasons for choosing the relevant destination. Additionally, climate is one of the most important factors when creating color schemes. Warm colors are used more in cold climates and cold colors are used more in hot climates. For example, the Mediterranean and Aegean regions contain some architectural features that hold these issues together. Narrow streets, generally arranged to create shadow, white color that absorbs light, and the cold effect of blue color is at the forefront. This serves thermal comfort purposes and is an important representation of the region's local culture. In this context, to protect the texture, local governments prioritize

the preservation of local architecture by imposing restrictions on color, texture, and material preferences. It is seen that white and blue colors are used in the color schemes due to the hot climate and cultural characteristics.

Hotels contain many places that offer different activities such as accommodation, rest, dining, and sports. At the same time, there may be separate functional properties such as summer or winter hotels, city hotels, and business hotels; based on such data, architectural planning differs, and the concept, design idea, materials, and color used in the selection differ. The relationship between function, climate, local architecture, and cultural texture with the chosen colors is at the forefront in this context. This is important to make the hotel a center of attraction for different customer groups.

This study focused on exploring color schemes and preferences in hotel design. The primary purpose of the research was to determine preferred colors and trend colors in hotel interior designs that received awards for 2022. Experiments were carried out using various color selection tools since the color palette and color schemes will be determined through visuals. Among the tried-and-tested applications, Adobe Color was preferred because it provides more detailed and accurate information. Subsequently, the relevant designs were examined and hotel designs with visuals suitable for determining color schemes were selected as case studies. Hotel projects include different units such as resting, dining, and social areas. Within the scope of this study, the rooms, that were selected as case studies consisted of several sections, such as suites. However, we limited our analysis to the sleeping areas of the room. Thus, it is aimed to reveal whether there is a general trend in color preferences and its relations with the user color preferences determined in the literature.

As a result, this study examined 22 hotel rooms among the 2022 design awards. These hotels received awards in different competitions and sub-categories and are used for different purposes. They include city hotels highlighting the local geographical and architectural texture, hotels with sea and nature views varying depending on the summer or winter season, and business hotels. They are located in different countries and geographical regions. Among the designs for which neutral and brown tones were in general use (all 22 rooms examined), it was seen that blue (7), red (3), and green (2) colors were preferred most where a single color was added (dominant color or similar color schemes). In addition, it was determined that there were 7 rooms where split/double or triadic complementary colors were selected, and 3 rooms where monochromatic color schemes were selected. Based on our case studies, it was determined that the most preferred three colors in award-winning hotel rooms in 2022 were blue, red, and green, with a total of 14 different shades of blue in 9 hotels, red in 7 hotels with 7 different tones, and green with 7 different tones in 6 different hotels. Moreover, HEX, RGB, HSB, CMYK, and LAB codes of all colors are given.

It is apparent that the colors are not being used in their brightest form, as mostly pastel tones are being used. While lighter shades of blue are used more, dark tones of red and green also are used. Blue was mainly used as a single color, while red was primarily preferred in a single-less ratio, such as accessories or wing chairs, and green was mainly preferred in complementary color schemes. As noted in the literature, there is a clear trend that cold colors such as green were preferred (Lee et al., 2018), participants were satisfied with blue (Siamionava et al., 2018), participants preferred neutral colors and felt more comfortable in blue (Mehrotra & Misra, 2021). As mentioned earlier, color preferences may differ based on various factors. According to the designs that won an award in 2022, it can be said that the use of blue, red, and green colors created a trend color scheme for this period.

It is expected the results from this study may be used to guide future research, including identifying deficiencies in color and design assessments, guiding designers about color knowledge, which is one of the building blocks of the interior architecture profession, and determining an auxiliary method for working in any design field for trend colors.

Author Contributions

This is a single-authored study, the author contributed 100% (Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing -Review &Editing, Visualization).

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Table 2: Color schemes of rooms using blue, red and green colors

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