

# Decoding Indian Color Design: A Strategy for the Post COVID Future

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## Abstract

India has a recorded history of textiles spanning five thousand years. In the past decades, color was treated as a marketing tool for high profits, which increased the unrealistic production of textile products as colors evoke feelings and play a strategic role in capturing consumer aesthetics to choose a textile fashion product. Literature review indicates the absence of a systematic approach to the use of colors based on the preference of the consumers in the domestic market. Being the unorganized setup, the domestic textile and fashion industry was seriously impacted due to the novel coronavirus pandemic that has created uncertainties on every front. This paper explores the textile design contemporary color practices during pre-COVID and peak and post-peak COVID times in India. The exploratory research was carried out in a phased manner, interviewing textile experts and capturing consumer color preferences. The Indian color indicators have been explored by understanding the relationship between color inspirations, palette development and consumer preference from the stakeholders of the textile and fashion industry. The result showed variety in Indian consumer color preferences representing the changes in society. The study also explored the relevance of the *Rasa* theory that was created Before the Common Era in the contemporary scenario to indicate Indian aesthetics. The theory of '*Rasa*' celebrates human psychology through emotions and '*rang*' the colors. The emerging changes were represented in nine themes of the theory and three major consumer color segmentation were generated highlighting the consumer contemporary approach. This paper further proposed a systematic approach for capturing Indian color aesthetics as a conceptual framework for initiating contemporary color research. The paper suggests color as a symbol of the circular economy by capturing Indian emotions to understand the color play and as a strategy to transform designers' approaches towards conscious development.

**Keywords:** Indian textile design practices, *rasa* theory, textile designers, color design, multicultural, color and emotions

## Introduction

The impact of COVID-19 as the key zeitgeist in India has resulted in widespread uncertainty across society in organized as well as unorganized workplaces. This disruption has also reverberated across the Indian textiles and fashion industry, raising compelling questions about the current practices and the need to initiate changes that can boost its growth. The circular economy approach has been identified as a transformative COVID-19 strategy promoting increased utilization over increased consumption (Ellen MacArthur Foundation, 2017). Though the current situation is fraught with challenges, it also presents an opportunity for design businesses to understand the psyche of the customer to ascertain their altered aesthetic perspectives. The recent rise in research on color psychology explores various dimensions of the relationship between color and psychological functioning as a determinant of behavior during the COVID-19 pandemic. The work-from-home norm has seen people reconsider how colors affect their moods and behavior. Enclosed mostly within their environments, the lack of external stimulation has caused emotional despondence that is reflected in specific colors and can be positively converted through replacement by mood-boosting hues to stimulate creativity.

In this situation, viewing color under the broader rubric of design gains added significance. As the materiality of color is integral to the vocabulary of design, color design forms a crucial part of visual aesthetics and is very important in product design (Tokumaru, Muranaka and Imanishi, 2002). Best (2012) describes color design as a systemic approach towards the use of color across textile colorations. Professional designers and artists are cognizant of the rules that guide the design of effective color palettes from both aesthetic and attention-guiding points of view (Wang, et.al., 2008). Designers use color palettes in an orderly manner to achieve harmonious color by using color harmony principles (Dickinson, 2011). Choudhury (2014) describes the color order system as a systematic and rational method of arranging all possible colors or subsets using material samples. Around 400 color order systems have been compiled wherein the first-order system was devised by Aristotle around 350 BCE. The Association Internationale de la Couleur comprising eight national color associations of eight countries in their meeting in 1967, deliberated on the role of color in design (Caivano, 2006; Tonnquist, 1977).

The visual association of India with the explosion of colors stems from a cultural code embedded in its geographical diversity tempered by its distinct and heterogeneous cultural landscape and religious rituals. Color is often a culture-specific concept that finds expression in art and design. While the influence of Mughal and colonial styles

on Indian aesthetics in design is well-documented, the role of color in the narrative of British colonialism and Indian nationalism continues to be an academic blind spot (Eaton, 2013). Saffron (Hindi: *bhagava*) emerged as a hue of national importance in the late 1920s when Jawaharlal Nehru recognized it as an 'old color', while educationist and litterateur, Suniti Kumar Chatterji designated it as a symbol of Indian life, thus elevating it from its humble position as a *katcha*<sup>1</sup> hue (Jha, 2014). These claims necessitated assessment with a *longue durée* approach to unravel the complex multiplicities of color on national aesthetics (ibid.). Color is integral to Indian textiles. Jain (2011) documents Indian textiles from the 15th to the early 20th century, spanning an almost 500-year period. Singh and Chisti (2013) presented an exhaustive overview of the components that constitute the language of the traditional sari including details of the raw materials, color, motifs and techniques of heritage hand-printed and handwoven fabrics. The Asian Paints Color Next Trend Report (2021) includes a comprehensive forecast of colors, materials, textures and finishes in the area of space design.

## Literature Review

Two aspects of color in art and culture that foreground any discussion on color design were studied — first, on the theories that distinguish between global and Indian approaches to the aesthetic of color, and second, specifically on the role of color in textile design.

### ***Color theories: Navigating Indian and global aesthetics***

The association of the Indian subcontinent with color is embedded in ancient literature. The *rasa* theory<sup>2</sup> illustrates the Indian concept of contemplative abstraction of aesthetics as an essential element of any visual or literary work or performing art especially theatre that is suggestive rather than descriptive. It deals with the typology of emotions, and their depiction, inference and transmission through works of art. Intuition for colors has been an integral part of Indian society. *Rasa* and *dharma* are two theories that underpin Indian aesthetics (Kannan, 2018). *Rasa* in Sanskrit, derives from 'ras' literally meaning juice and therefore referring to the essence of aesthetic flavor of art, is considered fundamental (Chandran and Sreenath, 2021). Kannan (2018) elucidates *alaṅkāra-śāstra*<sup>3</sup> and the *Rasa* theory propounded by this *śāstra*, with greater ramifications and clarifications through centuries, has much to contribute towards many issues in modern psychology and poetics state that *alankarashastra* is a natural effloresce of the Indian ethos and the *rasa* theory therein is one of the most outstanding contributions of India to a general understanding of human emotions and psychology. Indian traditions have blended the *laukika* and *alaukika*, the mundane and transcendent (ibid.). Indians have absorbed and adopted myriad stylistic influences

and cultures. Misra and Chakraborty (2018) expressed nine 'rasa' and their association with architectural visual design. Bharata's *Natyasastra* sums up the theory of image-making, all is futile, the recital of formulae, the counting of beads, austerities and devotion unless one has gained the knowledge of the color scheme (Mukerjee, 1965).

Johann Wolfgang von Goethe's book titled *Zur Farbenlehre* ('Theory of Colors') in 1810 was one of the earliest formal explorations of the psychological impact of different colors on mood and emotion. Subsequently, scholars have conducted experiments on the association of color with emotions, gender, food and culture. While there is increased interest in research on color with important developments in both theoretical and empirical outcomes, literature on color and psychological functioning are at a nascent stage of development (Elliot, 2015). Pal (2016) summarizes the association of color, psychology and its symbolic meaning as presented in Table 1.

**Table 1:** Association of color, psychology and symbolic meaning  
Source: Pal, 2016

Color	Psychology	Symbolic meaning
Red	Hot, affectionate, angry, defiant, contrary, hostile, full of vitality, calm, tender.	Happiness, lust, intimacy, love, restlessness, agitation, royalty, rage, sin, blood
Blue	Cool, pleasant, leisurely, distant, infinite, secure, transcendent, calm, tender.	Dignity, sadness, tenderness, truth.
Yellow	Unpleasant, exciting, holistic, cheerful, joyful, jovial.	Superficial glamour, cowardice, sun, light, wisdom, masculinity, royalty (in China), age (in Greece), prostitution (in Italy), famine (in Egypt).
Orange	Unpleasant, exciting, disturbed, distressed, upset, defiant, contrary, hostile, stimulating.	Sun, truthfulness, harvest, thoughtfulness.
Purple	Depressed, sad, dignified, stately.	Wisdom, victory, pomp, wealth, humility, tragedy.
Green	Cool, pleasant, leisurely, in control.	Security, peace, jealousy, hate, aggressiveness, calm.
Black	Sad, intense, anxiety, fear, despondent, dejected, melancholy, unhappy.	Darkness, power, mastery, protection, decay, mystery, wisdom, death, atonement.
Brown	Sad, not tender, despondent, dejected, melancholy.	Melancholy, protection, autumn, decay, humility, atonement.
White	Joy, lightness, neutral, cold.	Solemnity, purity, femininity, humility, joy, light, innocence, fidelity, cowardice.

### ***Color in textile design***

Human need is the origin of the design, not only physical but also psychological, socio-cultural, ecological and spiritual terms (Balaram, 1998). The properties of hue, lightness, and chroma are integral constituents of color and the most challenging attribute of design (Eaton, 2013). Claiming that prior studies on preferences for the harmony of color combinations reflected uncertain results, Schloss and Palmer (2010) developed criteria for differentiating among three types of color pairs. Color perception is a psychological phenomenon whose pervasive presence in everyday surroundings has the embedded capacity to influence perspectives and evoke emotions. Color psychology explains how color affects human emotions and is used extensively to understand the consumer psyche for higher acceptability of a designed product (McKelvey and Munslow, 2008). In content marketing, the choice of color is important as an emotional cue that nudges the consumer to see, feel and act in specific ways.

The process of designing textiles involves the development of colors, textures and forms in planned repeats and layouts to maximize their effectiveness. Color is a subjective factor wherein its context and relationship with design have been explored by authors. Cassidy (2013) posited that factors such as trend, season, culture, age and gender indicate human desire to conform or express individuality. Color signifiers, indicators and insights lead to the development of color palettes (Kress and Leeuwen, 2002). In western countries, the process of color palette development is through forecasting which considers sales data of the previous season as well as current influences, socio-cultural context, economic conditions, and designer intuition (King, 2011). Local associations with specific colors often vary across cultures, regions, nations, and personal preferences (Hidefi, 2017).

However, there is a gap in the available data on the contemporary color preferences for textiles in India. The design process of textile development from inspiration to adaptation to derive a seasonal color palette employed by the Indian textile designers is not documented. An exploratory approach to this qualitative research was undertaken to understand the reasons and other undefined aspects of textile design practices in India with a specific focus on the ideation process of color palette development employed by textile designers during the pre- to post-peak periods of the pandemic. The ancient *rasa* theory forms a point of reference in tracing the ideation process from the identification of color inspiration sources to the color palette development by textile designers. Data is supplemented by the verification of consumer preferences to develop an Indian color indicator.

## Research Methods

The research methods were determined on the basis of these objectives. An exploratory research methodology was adopted to gain insights regarding the perspectives of textile design practices in the textiles and fashion industry in India during the pre-, peak and post-peak COVID periods. In the first phase of the study, it was necessary to identify the respondents to get an insight into color adoption and its uses in textile design development for the Indian market. Twenty-three professionals and experts from the fashion and textile industry across India were identified with the singular intention of studying their color design practices. The sample included 11 textile designers with experience of 5-14 years, 2 fabric manufacturers, 3 textile product retailers, 2 fashion designers, 4 textile design educators and 1 textile trend expert. The lockdown in India started with the first wave of COVID-19 in 2020, the peak period from April to July 2021 followed by the post-peak pandemic period (Soni, 2021). Due to COVID protocols, face-to-face interviews were not feasible and therefore, telephone interviews were conducted. Ten questions were framed to get insights of the experts on their sources of color inspiration, consumer color preferences, the extent of use of international color forecast, the rationale for color selection and palette development, shade card development, regional aesthetics, theme development, periodicity and time required for range development, Indian color forecast, consumer segmentation and variations in color preferences. The interview schedule did not include questions on the application of colors to fashion textile products.

During the interviews, there was perceived reluctance among the respondents to answer certain questions related to their professional design and business practices. Their hesitation was allayed by initiating general enquiries on their health and work during the pandemic. Duration of the interviews was 40-50 minutes. Telephonic conversations were transcribed using 'Otter' software. The collated data was subjected to content analysis and the transcribed data was coded for categorization and development of themes. The primary objective of this method was to collect authentic insight into people's experiences (Schloss and Palmer, 2010). After decoding the collated data, the codes were verified by corroborating them with the color preferences of the consumers during the same period.

The study also required collection of color preferences from the consumers. As a faculty member in the undergraduate Textile Design program in NIFT Delhi, the author-researcher used a convenience sampling method to identify 35 students of semester VI as the consumers. Research activities were initiated in July 2021 during the second

wave of COVID. The purpose of the study was explained to the student respondents who were then required to identify color signifiers through image collection from selected regions for color palette development. Based on this process, the student-respondents developed 5-8 color palettes. A significant factor that influenced color selection was their knowledge and prior associations with color (Cassidy, 2013). Due to the pandemic restrictions, discussions were held remotely through Zoom and Google Meet sessions. However, visualization and digital communication of color on digital devices posed problems as colors do not always translate well from the physical to digital world, and differ due to monitor brightness and color model selection, when shared among the participants. To overcome these technical constraints, identified color palettes were digitally generated using a color recipe. The RGB color model was identified and the Munsell color R model was used for the digitization of colors (Ibraheem, et al., 2012)

In the third phase, codes generated from interviews with experts and consumers were analyzed to generate a perspective for contextualization, categorization and theme generation. As the outcome of the first and second phases indicated a shift towards emotions, it was decided to compare the themes under the *rasa* theory construct. The inspiration themes were categorized to observe the contemporary Indian color design. This process decoded the relationship between emotions and inspiration sources. The final themes that emerged were shared with textile designers who were part of the interview discussion in phase one, for their feedback and corroboration.

## **Results and Discussion**

Insights obtained from the interviews conducted with the experts in phase one and the consumers in phase two were compiled for generating themes. Salient insights obtained through this study were categorized into color inspiration indicators, color palette, Indian color aesthetics, color order, development cycles and color-based consumer segmentation. Data obtained in phases 1 and 2 are presented together to bring out the corroboration of emerging themes. The color emotion relationship viz., the color indicator insights observed through experts' interactions and consumer preferences were summarized in a tabular format and presented as a pictorial representation. This table was named 'Color Cue' as it provided cues for color insights for the development of color palettes.

### ***Color inspiration indicators***

The textile industry participants informed that their intuition grew from their experiences, and is the prime source of color inspiration for textile designs. They

informed that for developing a seasonal color palette, they refer to resources on color such as books on traditional textiles with photographs and related visuals of the natural environment, trade magazines on textile design and technology, social media platforms notably Instagram and Behance, websites, cinema, Indian crafts, trending designer work, international forecasts, client briefs, social events and travel. For Indian product lines, the concentration is usually on the cultural ethos encapsulated in its textiles, luxury homes, rituals and customs, celebrations, historical events, traditional, color narratives and symbolism, popular and social events, heritage, architecture, tradition and ethnicity.

Textile designer Prince Kunal of Kriti & Kunal Design Studio said that designs are now increasingly bespoke, having planned according to the particular taste and requirement of the consumer with attention to every detail. The inspirations are coming from Indian deep-rooted stories and narratives. N. Roshan Singh, Chief Creative Officer, Sarita Handa conveyed the current state of uncertainty and unpredictability of consumer preferences and the periodicity of purchases. This makes it the right time to generate experimental color palettes that can emerge as trendsetters.

Most participants informed that after the disruptive times, their concentration is on spotting new inspirations to generate a 'point of interest'. The most potent source of inspiration is the digital platform where new color vocabularies are constantly explored. The experts stated that traditional boundaries are blurring and gradually transforming. There is a move away from traditional color sources such as traditional textile books. 23 percent of the textile designers informed that they prefer to question the norms and generate alternative moods to capture this change. However, 17 percent of the experts informed that though traditional sources of color inspiration continue to be predominant, they now experiment with color proportion and saturation levels to highlight the newness. Around 35 percent of the participants informed that colors are now neither sociologically determined nor culturally dependent; they have evolved from sources that have not been explored earlier. Most experts informed that they refer to the international forecast as it has scope for interpretation. 64 percent referred to it for saturation and value that characterize visibly new colors; 22 percent use it for developing colorways for global consumers and 14 percent use it in its entirety. Retailers informed that during the peak COVID period, they opted for cost reduction by not introducing new colors. This drastically affected the practices of textile designers. Textile design consultant Saloni Sharma informed that increase in purchases of home products with emotive color palettes generate a calm mood. This statement gains



relevance as consumers are spending more time at home and therefore, are increasingly engaged in home décor.

With regard to color preferences exercised by the consumer, inspirational visuals were not limited to nature and traditional textiles, but were collected from diverse cultural settings. 56 percent of the selected visuals were related to a spiritual approach for calming and enhancing moods, 24 percent preferred traditional color sources and 20 percent observed unexpected sources of inspiration. Most consumers chose unique regional sources as inspiration for personal choices highlighting their region sensibilities to celebrate their identity. Most of them identified inspiration from sources such as food, places of tourist interest, local lifestyle, dance, streetwear and developed 'meanings'. Consumers informed that during the peak COVID period, they observed a significant change in their viewpoint concerning sustainability and the environment. Some commented on the overflow of personal photographs with the family during home quarantine including images expressing a multitude of emotions from happiness to solitude and yearning. Based on the quality of visual research, there were variations in the color inspiration indicators. Consumers observed color inspiration from 29 states of India. Two given examples of consumer feedback indicate their thought process during the color palette development period.

Consumer 1 commented: I saw 29 hues of red, blue, green, yellow and orange which changed my views about color in India.

Consumer 2 commented: I realized the power of culture on fashion and how colors shape one's perspective with different orders of colors in the Indian landscape.

Discussion on inspiration sources led to the identification of common sources which included both traditional and new sources. Most designers opined that there was an increased commercial approach to textile design development with unlimited color mixes during the pre-COVID period. However, they felt that consumers are significantly more conscious about their purchases. To retain old clients and attract new consumers, there is a felt need to avoid repetition of previous color palettes and to emphasize originality and quality. Designers also informed that color sources also depend on consumer segmentation. Designers informed that diverse color inspiration sources were used for consumers in Tier-I cities while traditional color resources were used for consumers in Tier-II cities. Color palettes developed by the consumers also showed a visible shift towards experimentation for generating new ideas. Designers look for new inspiration sources which connect with the Indian consumers and also experiment

with colors to enthruse the consumers. Similar opinions were received from design educators who felt that inspiration sources referred to by the students have changed considerably and are increasingly reflective of a new approach to Indian colors. The visible shift from cultural to personal color preferences was reflective of the inclination towards an emotional approach to design.

### ***Color palette***

In reference to the color palette, 26 percent of the textile designers informed that Indian consumers with a global approach do not prefer identifiably Indian aesthetics. 36 percent of the retailers and manufacturers felt that increasing national consciousness is reflected in consumer preferences, which is a conscious move towards Indian aesthetics. The Indian retail sector divides India into four zones (north, east-west and south) where the development of colorways plays an important role in incorporating regional aesthetics with global influences. Designers informed that they incorporate one black-and-white, one blue-dominant, one green-dominant and one black-and-red dominant story in the color palettes for wider acceptance. Some designers informed that sometimes traditional inspiration having a combination of pink and green colors are reshuffled or jumbled up with other inspiration having yellow and purple to generate new combinations which are not region-specific but more experimental towards new Indian palettes for the modern consumer. Such experiments were also visible in consumer preferences showing the mixing of regional colors, showing a visible move towards Indian color mixing, a generation of new national identity.

The textile designers explained that color palettes are determined on the basis of their previous experiences with consumers keeping in mind that all colors may not be preferred by all communities. While 12 percent of the designers preferred conventional colors as experimentation has inbuilt risks without confirmed selection, 17 percent preferred color selection based on international forecast periodicals for the new palette. All participants informed that the absence of data on color selection based on regional preferences makes the development of a color palette for India a challenging task.

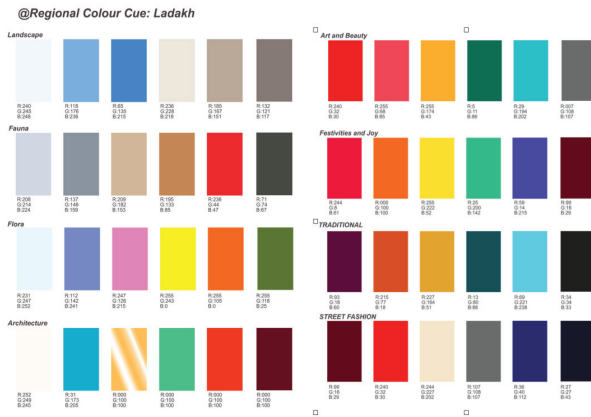
Textile designers informed that during the peak COVID and post-peak COVID periods, they were asked by retailers to adapt earlier designs using limited colors to reduce production costs to commensurate with lower purchases during the pandemic. They also reported that in the pre-COVID period, professional color palette development was primarily based on discussions with the design marketing team while incorporating the insights and instructions of the buyer, as well as sales figures of the previous

season. During the peak COVID period, the introduction of new colors was significantly reduced and time-tested popular colors were continued due to uncertainty about the commercial feasibility and periodicity of product lines. Designers working for the domestic market informed about the challenges they faced in the absence of specific color directions during the pandemic. In this situation, the designers felt that infusion of originality could increase the consumers’ acceptance.

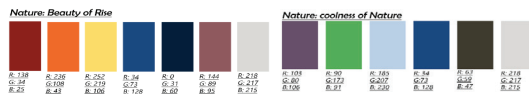
New sources of inspiration were derived and new palettes were generated. Consumer preferences were reflected in new color palettes based on religion and culture leading to diverse attributes and preferences. A visually appealing mix of bright and soft hues was generated to reflect consumers’ search for mindfulness. The consumers informed that 74 percent of the new colors were derived from unexplored sources. Experimental approaches to Indian colors were observed while 26 percent of the consumers continued with a regional mix. Three examples of consumer preferences for the color palette developed for West Bengal, Ladakh and Himachal Pradesh respectively, are given in Figure 1, 2 and 3.



**Figure 1:** Color palette from West Bengal



**Figure 2:** Color palette from Ladakh



**Figure 3:** Color palette from Himachal Pradesh

From the above, it was observed that the interview insights matched consumer preferences. The experimental approach to generate new color preferences arose from the emotions and physiological reactions during the pandemic. Concern for the environment, empathy with communities and admiration for the COVID heroes were celebrated by consumers which translated to color selections that were deeply personal and rooted in their own experiences of this time. Some consumers chose neutral colors to soothe their insecurities caused by isolation and economic slowdown. Others expressed hope and optimism regarding their health through the selection of bright colors. The color palette showed two distinct characteristics — one devoid of basic hues but with a predominant use of tints and shades, and the other with vibrant hues. The themes of Enhanced Luxury, Celebration, Traditional, Fashion Activism, Historic, Heroism, Formal, Indi-mix, Glocal and Religion explored by consumers showed scope for experimentation. Emotive color palettes were in two distinct categories—relaxed and energetic.

### **Indian color aesthetic**

The color palette developed by consumers as Indian color aesthetics identified regional colors, as well as reshuffled and mixed regional colors. Designers also informed that an emerging consumer group is reflecting a conscious shift from regional color sensibilities

towards more cohesive and integrated color preferences reflecting societal changes common across Indian settings. Sanjay Garg, designer and founder of Raw Mango, expressed appreciation for the uniqueness of Indian color. His signature style is based on provocation recognized by the reportioning of traditional colors with unexpected, modern color iterations. He emphasized his deep interest in conscious intervention to redefine the conventional Indian color palette.

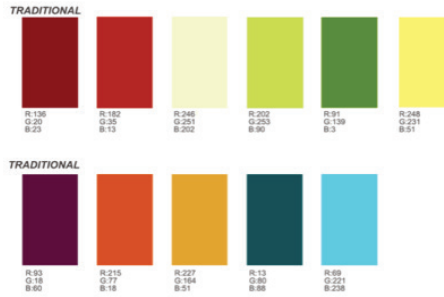
Warmer tones are preferred in India as the strong sunlight in India mutes the pale hues of tertiary colors (Abraham, 2019). However, in the absence of a color direction that is geared towards a distinctly Indian design sensibility, international color forecasts are used in Indian markets even though superimposition of foreign color palettes does not synchronize well with the Indian color scape. The use of Indian traditional and regional colors in more commercial settings during the pre-COVID period was highlighted by the designers. There is increasing interest in the conscious selection of visually enticing color palettes that are likely to appeal to the consumers' emotions.

### ***Color order***

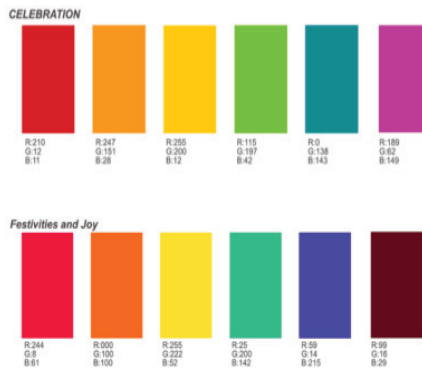
Color order is defined as the order in which hues along with tints and shades are planned to generate a visually appealing palette (Choudhary, 2015). The designers informed that color orders vary in different regions of India due to cultural and religious diversity. The use of colors varies in each region celebrating the uniqueness of each region. The order also includes the proportion in which color is used. In both the northeastern and southern parts of India yellow color is preferred. However, the preference is proportionately higher in southern regions. Some regions are known for their bright color palette and others are known for their contrasting color palettes. With regard to color order usage, the designers informed that generalization of consumer lifestyle results in the development of palettes that are considered 'safe' (based on the sales figure) at the local levels. The selection of colors in specific regional-based color orders has been intuitive in their assignments.

Consumers also observed that differences in the color order resulted in a visible difference in the color palette. Consumer activity highlighted the difference in color order usage in each region in terms of hue, saturation and value. Under each indicator, consumers celebrated twenty-seven palettes representing different Indian regions. According to Cassidy (2020), a local group can indicate a better cultural color for the region than a single forecast for the entire nation. Two examples of traditional colors from West Bengal and Ladakh were compared to show the color order in hues and

tone. In Figure 4, the upper row shows the traditional color palette of West Bengal and the second row shows that of Ladakh. Figure 5 shows the festive color order of these two states.



**Figure 4:** Comparison of traditional color palettes for West Bengal and Ladakh



**Figure 5:** Comparison of festive color palette for West Bengal and Ladakh

### ***Development cycles***

The designers and retailers informed that the development cycles are based on national events, regional festivals, seasons and occasions. The experts pointed out that season-based development is an international planned activity where the pre-COVID market adopted the fast fashion model. Many online retailers informed that they develop monthly updates to match fast fashion models for increased profitability. Interviews with designers from Pantaloons and Amazon revealed that the merchandise is updated six times a year. Fashion designer Pratima Pandey informed about the singular focus of the brand with embroidery only for the summer season. Designers working for international brands in India informed their development cycles follow the Spring/Summer and Fall/Winter seasons as in other countries. In the pre-COVID period, the development process for a collection to be launched in December would start almost

one year in advance. However, during the peak COVID and post-peak COVID periods, the buyers' turnaround time has reduced. Each company has now been working towards a distinctive development style to attract consumers. Due to the pandemic, investments in new developments are consciously planned.

### ***Color-based consumer segmentation***

Many researchers have explored consumer segmentation to understand their behavior for development of strategies which includes demographics, geographic and psychographic characteristics. Consumer segmentation divides a customer base into groups of individuals who are similar in specific ways (Hemalatha, Sivakumar and Jayakumar, 2009). With regard to the color-based consumer segmentation practices, a variety in the codes was visible while decoding the interview data. The codes indicated consumer preferences for both traditional colors and western colors. Traditional color preferences included 'pure traditional' and 'mixed traditional' aesthetics due to regionalities. A group of consumers preferring colors had two approaches, one using only western color palette, and the other mixing western color with Indian color. Experts informed that modern consumers have both regional and global color preferences. Young urban consumers expressed their preference for traditional colors and also for mixing regional colors. Designers informed that the younger generation experiments and celebrates Indian colors to express a newfound Indian aesthetics. All participants informed that the lockdown period provided overexposure to digital and smartphone content. OTT content platforms on celebrity fashion and their social media posts were viewed across multiple demographics. This indicates a visible blurring of region-specific preferences. Designers were of the opinion that at this point of time consumer preferences are based on their attitude and not limited to culture only in the post-peak COVID period. Mixed preferences were emphasized by both designers and consumers combining regional Indian and global sensibilities to project oneself as a global Indian for global competitiveness. Sudha Dhingra, Professor, Textile Design department at NIFT informed that the growing appreciation of the young generation for indigenous colors while experimenting with contemporary western choices is an encouraging trend that is likely to boost indigenous crafts and textiles.

This indicates a growing movement among Indian consumers towards color experimentation. There is a deeper understanding of harmony and complementarity of colors. Consumer preferences for softer hues and cooler tones were seen. Based

on the data collected from phase 1 and phase 2 of this exploratory study, consumer preferences have been placed in three categories:

- Traditional: Preference for Indian regional and traditional colors;
- Global: Preference for international colors and mixing them with Indian colors;
- Urban: Preference for mixing regional and traditional colors, as well as mixing western and Indian colors.

### **Color cue**

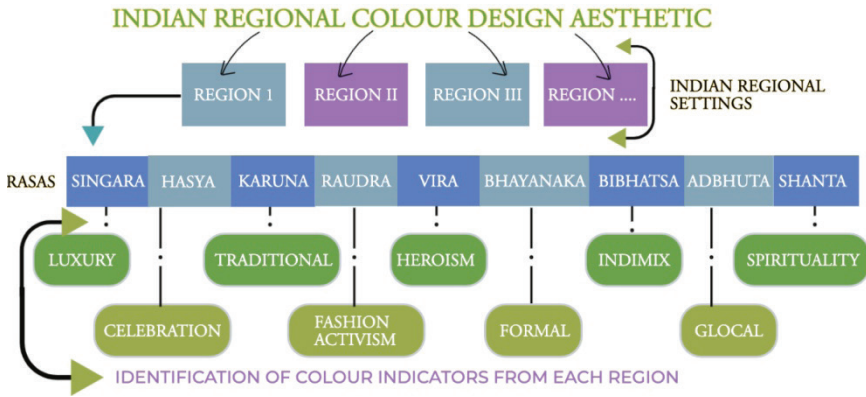
The color cue tabulation (Table 2) links the insights collected through expert interviews and consumer preferences to develop specific color palettes relating these to the nine emotions of *rasa* theory. While relating each color indicator with a corresponding emotion, the continued relevance of *rasa* theory is observed. '*Rasa*' lists nine types with meanings and associated emotions; 'Theme: Constructed Indicators' lists the predominant themes. The 'Color Indicator' theme gives qualitative insights into the diversity of modern consumers in India and the inspiration column reflect sources of inspiration. Once the association was developed, the color cue was shared with textile designers who were interviewed in phase 1 for corroboration. Based on designers' suggestions, two new columns, viz., the sub-theme column reflecting sub-themes included under the main themes and 'Consumer segmentation' which indicates consumer color-based group were included for ease of reference. It is further proposed that digital technologies could be adopted to capture color cues.

The discussion on multiple approaches to conceptualizing and developing an authentic color palette for professional textile design practices highlights the diversity of India's multiculturalism and consumer preferences. Consumer preference showed a significant shift from the traditional approach to adopting an emotional approach. Selection of color is based on surrounding self with security and a hopeful approach towards a new direction that is full of energy and excitement. Human psychology through nine emotions resulted in the categorization of color to map the diverse Indian consumer. The themes generated out of expert interaction and consumer preferences matched significantly with the ancient Indian *Rasa* theory of aesthetics showing its relevance even today. Consumer segmentation showed prominent categorization in three major categories - Urban, Traditional and Global, reflecting the requirement of changes at the fundamental level in textile design practices.



Table 2: Color cue

<i>Rasa</i>	Meaning	Emotions	<i>Bhāv</i>	Theme: Color indicators	Sub theme	Inspiration	Consumer Segmentation
<i>Srngara</i>	Erotic	Erotic love	<i>Rati</i>	Luxury	Heritage, Constructed luxury, Influences	Colors inspired from Indian luxury settings and international forecast colors	Traditional, Global & Urban
<i>Hasya</i>	Happiness	Mirth	<i>Hasya</i>	Celebration	Occasion, Events	Colors inspired from varied festivals and occasion	Traditional, Global & Urban
<i>Karuna</i>	Empathy	Compassion	<i>Soka</i>	Tradition	Regional, Ethnic, Folk	Tribute to culture based on respect for its history, craft traditions and sensitivity	Traditional
<i>Raudra</i>	Furious	Anger	<i>Krodha</i>	Fashion activism	Individuality, Voice	Colors inspired from activities fighting societal norms and environmental concerns	Urban & Global
<i>Vira</i>	Heroic	Energy	<i>Utsah</i>	Heroism Pride	Historical, National activities	Colors inspired from historic events and narratives of heroism	Traditional, Urban
<i>Bhayanaka</i>	Uncertain	Fear	<i>Bhaya</i>	Formal	Corporate working class, Disruptive times	Colors inspired from constructed discipline	Urban & Global
<i>Bibhatsa</i>	The odious	Astonishment	<i>Jugupsa</i>	Indimix	Emotive, Mood driven	Colors inspired from mixing different regional connect	Urban & Global
<i>Adbhuta</i>	The marvellous	Awesome	<i>Vismay</i>	Global	Western adopters, Playful, Experimental	Indian colors with international color spin	Urban & Global
<i>Shanta</i>	The calmness	Peace	<i>Shant</i>	Regional	Spirituality, Customs, Rituals	Colors inspired from religion and landscapes	Traditional, Global & Urban



**Figure 6:** Conceptual framework for Indian color design

The proposed framework for Indian color design is indicated in Figure 6. Under each Indian regional color, the cue indicates ways of identifying the inspiration sources. The color palette development within these indicators enables the identification of consumer emotions through a replicable process for each region. ‘Fashion Activism’ was among the most popular themes among the consumers, which was indicative of a deep concern for the environment and the need for a sustainable approach.

In this research, color is observed as a tool within the context of circular economy and within the textile waste conundrum. By improving the color usage to promote slow change could potentially ensure that fashion could be more sustainably consumed and valued by the consumer through their emotional attachment to its color for increased use of the product (Cassidy 2020). The proposed conceptual framework initiates the development of realistic consumer color preferences to have a better and improved conscious product association by way of re-assessing the color preferences of Indian consumers to avoid premature obsolescence of the items. Color being the most significant factors influencing consumers’ purchasing behavior (Ou, et al., 2004) can ensure circularity by increasing product association rather than using it as a linear process and as a marketing tool that results in large amounts of textile waste being incinerated, landfilled, or exported to developing countries (Niinimaki, et al., 2020).

## Conclusion

This exploratory study has attempted to shed light on the impact of COVID-19 on textile design practices with focus on India to generate an indigenous color design as an

analytical and creative human activity that is critical to the understanding of changing consumer preferences. The study identified repeated references to traditional color inspiration sources during pre-COVID period and a conscious move towards generating color palettes based on consumer preferences for authentic product associations. The interview interaction revealed changes in color inspiration sources reflected in consumer preferences such as diminished references to traditional, increase in new/unexplored sources, increased questioning of traditional norms, the rise of individual voices as a conscious move towards fashion activism, and representation of societal changes as an influencer for color selection. Uncertainty and unpredictability of consumer preferences and periodicity of purchases are mandating design practitioners to generate experimental color palettes that can emerge as trendsetters. The peak COVID period led to changes in consumer influences indicated towards the emotive approach. A visible change in human psychology was observed highlighting the blurring of traditional boundaries to the gradual transformation of colors; neither sociologically determined nor culturally dependent, but a personal approach. Visual collection-based color palette development showed increased leaning towards spirituality to calm and uplift moods that express a multitude of emotions. Consumer segmentation indicated the diversity and changing consumer preferences directed towards need assessment by initiating in-depth color research. The research findings are directed at re-looking consumer preferences, the genesis of which would be from the multi-dimensional upheavals of the pandemic rather than following traditional norms. At this time, designers would need to subscribe to experimental approaches to generate themes that are relevant and are likely to strike a chord with the users.

The proposed color cue structure aims to present color inspiration sources to take on an identity role between the Indian local and global market. An experimental approach to capture this as an opportunity to perfect the color process for realistic product planning is the need of the hour. Consumers are emerging from the pandemic crisis with a different mindset. A sensitive approach towards Indian consumer color taste, aesthetics, and emotional connection could positively change textile products for a longer duration with a long-term social and environmentally resilient future. His exploratory study has provided insights and changing approaches towards color practices in textile design during the post-peak COVID period and proposes to observe realistic color preferences of Indian consumers for sustainable growth.

## Notes

1. *Katcha* in the context of fabric, refers to dye that has not adhered to the fabric properly and is prone to cracking, bleeding and fading.

2. The theory of *rasa* is attributed to sage-priest, Bharata (c. 1st century BCE and the 3rd century CE) and was further developed by the rhetorician and philosopher Abhinava gupta (c. 1000).
3. Alāṅkāra-śāstra explains the origins and outcomes of literature in India for over two centuries.

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