Cultural Resonance and Innovation: Traditional Chinese Colors in Contemporary Design Practice

[1]Guo Ling Ling, [2]Ahmadrashidi Hasan, [3]Zhiqun Ren, [4]Zhou Jiang

[1,3,4]Nanchang Institute of Science and Technology, City University Malaysia, [2]City Graduate School, City University Malaysia
Email: ahmad57rashidi@gmail.com
Corresponding Author Email: 474616812@qq.com

Abstract
This paper explores the incorporation of Chinese traditional colours into the modern design practice, such as how the traditional colour, which is inherent in the culture, such as vermilion, imperial yellow, jade green and indigo blue are interpreted, used and redefined in the new visual culture. Using the mixed-methods research design, the study collected the qualitative data using semi-structured interviews with 18 experts who included historians, cultural theorists, and professional designers, and the quantitative data collected using a structured survey that was offered to 477 consumers of various demographics. There was the use of purposive, snowball and stratified random sampling to promote both depth and representativeness. The results have shown that traditional Chinese colours have deep kinds of symbolic meaning both to the professional and the general population. Designers stressed on them as tool of cultural distinction and emotionality, especially in branding, fashion and interior design. The consumer survey data showed a great deal of positive correlations with authenticity and aesthetic richness, but a significant generational difference appeared: younger participants were more willing to creative reinterpretation, whereas older generations favored symbolic conservatism. The research states four strategic principles of the practitioners, including historic awareness, contextual adaptation, material and technological integration, and co-creative participation, which can allow designers to maintain cultural authenticity and achieve innovativeness. The results of the findings can be added to the body of research about heritage and design, confirming the idea that traditional Chinese colours can be discussed as living cultural means with the potential to add to the international design practice in the twenty-first century.
Keywords: Traditional Chinese Colours, Contemporary Design, Cultural Heritage, Design Innovation, Cross-Cultural Exchange, Visual Semiotics, Mixed-Methods Research

Introduction

The clash of design innovation with cultural heritage has become a hallmark issue in the current creative practice and specifically as designers are asked to balance the requirements of a global market which can be relevant and the aspect of cultural authenticity. The traditional Chinese colours, including vermilion, imperial yellow, jade green, ink black and indigo blue have a special place in this discourse. The origins of these colors are in centuries of philosophical arguments, imperial control, aesthetics; the colors carry a strata of symbolism that flows far beyond the visual attractiveness and serves as a means of cultural discourse, identity and community history.

Colour in the classical Chinese society was a very strict form of semiology. Imperial yellow was a preserve of the emperor and was a marker of centralised power and divine right to rule; vermilion was used in palaces and ritualistic objects as a protective talisman; white was used to mourn and jade green was used to signify purity, harmony and union with nature. These connections were solidified in the cosmology of Wuxing (Five Elements) and Yin-Yang philosophy with colour imbibed in a consistent world system that also connected material aesthetics with morality and harmony within the cosmos.

The modern revival of the interest in such palette is an indication of the larger cultural processes. The rise of Guochao (National Trend) movement, where young Chinese designers and consumers rediscover traditional aesthetics, including colour, applied to the newest street and wearable designs, digital branding, product design, and so on, is an example of the power behind heritage as a generative tool, not a restrictive one. At the same time, the new challenges of globalisation, such as the danger of the symbolic watering down, commercial simplification, and misinterpretation of others, have emerged.

The article is based on the doctoral research at City University Malaysia, and it specifically discusses these dynamics. It explores the perception, application, and reinterpretation of traditional Chinese colours in the current design practices, based on the information obtained by design practitioners and consumers. The research aims at four research questions, seeking to understand both the historical and cultural meanings of traditional Chinese colours; to examine the view of designers and consumers on their application in contemporary design; to understand the effects of traditional Chinese colours on design innovation and creativity in different fields and to come up with evidence-based principles to help designers and consumers utilize the use of these colours. The article has the following structure: Section 2 provides an overview of the theoretical and empirical literature; Section 3 outlines the research methodology; Section 4 presents and discusses the findings; and Section 5 provides conclusion and implications on practice and further research.

Literature Review

Historical and Cultural Significance of Traditional Chinese Colours

Traditional Chinese colours have never been aesthetic phenomena per se. Their connotations were determined in the systems of philosophy, especially in Wuxing, linking the five main colours (red, yellow, green, white, and black) to the five elements, fire, earth, wood, metal, and water respectively, and cemented over centuries of imperial, religious, and craft customs. The study by Shi et al. (2021) shows that such connections are still alive in the mind of modern

viewers, and, therefore,, the symbolism of colour used in the past still guides visual perception despite a shift in design situations.

In the larger circle of Chinese art history, colour has been used as a story-telling tool and social indicator. Meng (2023) demonstrates that folk art traditions in various parts of China used a specific chromatic variety: red was used to celebrate, green to grow, black to be serious. These practices provide designers with a full semiotic fountain that, when used culturally competently, may result in work with a deeper emotional and historical impact.

Perceptions, Authenticity, and Generational Divergence
The study of the perceptions of the audience towards the traditional Chinese colours portrays a sophisticated topography. According to the literature on the Guochao phenomenon (Liujinjing & Nah, 2020), there is a generational division: younger customers are more likely to explore the traditional colours via creative reinterpretation: they match them with minimalistic forms or digital aesthetics, whereas older people are more loyal to historical representations. Pan and Wang (2023) emphasize the role of intentionality in the implementation of colours stating that the application of traditional colours with a sense of the connotations in them produces emotional resonance and cultural authenticity that are not achievable with generic palettes.

In the case of the creative industries in Taiwan, Chang and Wen (2013) determine that authenticity is the most important variable in consumer judgment of products that are culture oriented. Their results are also consistent with the rest of the literature on the dangers of using colour superficially or tokenistically. When the palettes are used in a traditional manner without cultural understanding of the application as ornamental as opposed to as a symbol of significance, they are prone to commodification and the loss of values that endow them with significance.

Design Innovation and Cross-Cultural Dynamics
The connection between innovation and heritage is theorised in the design literature in a productive way. Augello et al. (2016) advocate the culture-based approach to innovation, presenting the fashion industry in the prism of which the social cultural development and creative performance intersect. When applied to the Chinese traditional colours, this paradigm implies that heritage colours are not a limit on creativity but rather generative resources whereby they offer conceptual richness as well as aesthetic variation.

This picture is complicated with cross-cultural dynamics. According to Zhao and Yaacob (2023), global misinterpretation and cultural translation is among the continuing problems when heritage-based design enters foreign markets. The aesthetic value of the traditional palettes might be responded to by the international consumer without having any understanding of its symbolic particularity, which causes a disconnect between the designers and the audience. The only way to maneuver this gap is by providing contextual framing of the information, whether it is by storytelling or material selection or layout, which is mediating without losing the authenticity.

The technological integration has been found as a vital facilitator in this process. The ability to recreate traditional colour palettes in a wide range of media and to generate palettes with

the help of digital colour-matching technologies or AI-powered palette generation and augmented reality platforms has enabled the extension of heritage palettes into the realms of screen-based, interactive, and immersive design.

Methodology
Research Design
The type of mixed-methods sequential explanatory design was used in this study, where the quantitative survey data were collected initially and later elaborated, using the qualitative interviews. This order allowed the research to determine general trends in consumer and designer perceptions and then examine the contextualization of the meaning of those perceptions and professional practices behind them. The combination between the quantitative breadth and the qualitative depth was especially appropriate to the research aims that demanded the quantitative attitudinal variables, as well as the detailed interpretive narratives.

Participants and Sampling
The quantitative strand entailed a structured survey which was conducted to 477 consumers who were attracted through various age groups, gender, occupational background and cultural backgrounds. The sampling was stratified to provide demographic representativeness where the strata were determined by the age cohort and cultural background (mainland Chinese, diaspora Chinese, and international non-Chinese respondents). The qualitative strand consisted of the semi-structured interviews with 18 professional participants, which included six design historians, six cultural scholars, and six professional designers with focus in fashion, interior, graphic, and digital design. Purposive and snowball sampling were used to select these experts to have a diversity of perspectives of disciplines and professional experiences.

Data Collection and Instruments
The survey questionnaire included Likert-scale questions that assessed perceptions of the traditional Chinese colours in four domains including cultural meaning, beauty in modern design, consumer preference to retain traditional versus modernisation and consumer behaviour. A small group of respondents was used in pilot testing to make the items clear and internally consistent.

The literature review and preliminary analysis of the survey helped to prepare semi-structured interview guides. The interviews were performed in Mandarin and English, recorded audio with the consent of the participants and transcribed word-to-word. The duration of every interview was about 60-90 minutes.

Analysis
The quantitative data were analysed through the descriptive statistics and the frequency of each item calculated. Thematic analysis was applied to qualitative data in accordance with the six steps theory of Braun and Clarke (2006): familiarisation with data, initial codes, theme development, review, definition and generation of the narrative of analysis. The results of triangulation between the data sources contributed to the validity of results. The process of research was carried out as reflexively as possible, and the researcher kept a reflective journal on which the interpretive decisions were reflected.

Results and Discussion

Cultural Perceptions and Symbolic Associations

The survey data showed a high positive attitude towards the traditional Chinese colours being culturally relevant: 40% of the surveyed strongly agreed and an additional 5% of the respondents agreed that the colours are an essential element of the Chinese design and heritage aesthetics (Table 4.2). Interpretation of interview data using thematic analysis has expounded on three themes that are interrelated namely, cultural heritage and identity, symbolic associations and impact on personal and social identity.

In terms of cultural heritage and identity, respondents in all the categories of experts defined traditional colours as essential reminders of continuity of Chinese culture. The color red and gold had always been linked to wealth, celebration and identity of a nation and reminded the nation of Lunar New Year festival, wedding and temple architecture. The use of traditional colour schemes in their design work was specifically outlined by the participants of the Chinese diaspora as a way of cultural representation in the multicultural environment. According to one of the Canadian designers, the use of vermilion and gold to package the products sent a strong message across as to their cultural background.

Symbolic associations were long-lasting and generationalized. Red was by far the most commonly associated with celebration and good fortune, imperial yellow with power and prestige, jade green with balance, growth, and overall earth-based harmony, indigo blue with calm and eternity, and white with grief though younger respondents started to think about white as a symbol of minimalist exquisiteness. These several layers of semantics imply that the symbolism of colour is not merely retained or even lost, but is actively negotiated within design practice and within the context of culture.

Attitudes Toward Integration in Modern Design

The consumers were concerned with the continuum of modernisation of traditional colours with respect to their tastes. An obvious majority (70%) supported slight (30%), or moderate (40%) modernisation indicating a desire to adjust to traditional palette without breaking their cultural links. Only one out of ten promoted severe preservation whereas five promoted total reinvention. The implication of such a distribution is that extreme conservatism and radical lack of connection to tradition are both minority views, and the majority of consumers will want designers to exhibit contextual judgment.

On the question, do the Chinese traditional colours enrich the contemporary aesthetics, 70 per cent of the respondents agreed or strongly agreed whereas 15 per cent were neutral and 15 per cent disagreed or strongly disagreed. Favourable feedback focused on the richness, symbolism and emotional appeal that classic palettes bring. Neutral reactions as well as negative ones were the issues of cultural peculiarity restricting flexibility of the designs, or the possibility of traditional colours to be incompatible with global minimalist or technological aesthetics. These conflicting responses make the contextual sensitivity in colour usage significant.

The preferences of the industry demonstrated branding and marketing as the area the most open to the traditional colour integration (32%), then fashion (30%), interior design (26%), and technology and product design (12%). The use of traditional palette as a functional

signifier of historical and cultural context was especially likely in cultural centres, heritage hotels, and religious spaces used by design practitioners. Branding and fashion applications were defined as more flexible and seasonal changes brought new tonal options although kept similar chromatic references.

Psychological and Emotional Impact
Qualitative data have shown that the psychological and emotional reactions to the traditional colours in China were frequently based on individual and biographical experience, but not on the abstract cultural knowledge. The respondents explained how warm and family cohesion and intergenerational bond were evoked by colours such as red and gold, and how the calmness and the balance of the spatial well-being were connected to celadon green. These emotional reactions indicate that colour serves as the go-between between the personal memory and the cultural story-telling at large-scale levels-a discovery which holds considerable weight in the spatial and experience design.

Traditionally colour cues actually had a measurable effect on consumer behaviour. Survey data was found to indicate a significant percentage of the interviewees indicated that they would buy the products with traditional Chinese colour schemes, especially at culturally distinct times like the Chinese New Year and Mid-Autumn Festival. Gold and red packaging was always viewed as an indication of celebration, high quality and good omen, and it is how the colour meaning can be converted into commercial values as long as the cultural values are triggered successfully.

Design Innovation and Practical Guidelines
The study found that there are four strategies that are intertwined in successful integration of traditional Chinese colours in contemporary design. One, historical and symbolic awareness, is that the designers must have substantive knowledge of the philosophical and cultural background of colour use, e.g. that the connotation of jade green as purity and aristocratism can be fruitfully reapplied in the context of the modern ecological and wellness movement. Second, contextual adaptation entails aligning the colour usage to the cultural literacy, generations and expectations of the target markets, and changing the intensity of the hues and pairing them accordingly.

Third, material and technological integration provides designers with effective means of cultural expansion. The reawakening of natural dyes and bio-based colourants relates the traditional palette to the contemporary sustainability agenda, and the digital tools, including AI palette generation, HTML colour matching, and AR/VR scenes, allow to reproduce the traditional colour and experiment with it in a variety of mediums. Fourth, co-creative involvement among heritage professionals, craftsmen, and end-users bases outcomes of design on valid cultural knowledge and makes sure that symbolic meanings are retained and shared with integrity instead of having to be turned into mere ornamental features.

The recurring theme throughout fashion, interior, branding and digital design was that the traditional Chinese colours object to best use are those used as generative cultural assets and not as nostalgic pastiche. Their figurative richness also gives designers theoretical building blocks that can promote meaningful experimentation and generate results that are, at once, both innovative and culturally rooted.

Conclusion

This work illustrates that the traditional Chinese colours are still essential, plastic and generative elements of modern day design practice. These palettes, far being the motionless remnants of the past, form an active semiotic system that can enrich the aesthetic, cultural, and psychological dimensions of design of disciplines and markets. The results of the research prove that cultural heritage and design innovation are not opposites; however, when the use of traditional colours is carried out with knowledge, intentionality and sensitivity to the context, the latter can serve as the elements of creative differentiation and cross-cultural interaction.

To design practitioners, the four strategic principles described in this paper; historical awareness, contextual adaptation, and technological integration along with co-creative participation can be used to give practical advice in overcoming the tension between preservation and innovation. To educators, the results indicate the significance of introducing cultural literacy in design, comprising of colour semiotics studies and heritage studies, in design syllabuses. To the policy makers, the study confirms that cultural institutions should pay attention to facilitate the transfer of cultural knowledge between the heritage institutions, the artisans, and the design industries.

There are quite a number of limitations that should be mentioned. The research was mainly carried out in the context of a Chinese and a Chinese diaspora, which can restrict the extrapolativeness of the results to non-Chinese audiences and design traditions. The subjectivity in design and the fast changing nature of aesthetics also imply that the preferences of consumers can change very fast and quicker than the empirical snapshots of the study. Future studies must build out cross-cultural comparison, examine the long-term effects of digital mediation on colour symbolism, and make use of the opportunities of immersive technologies to project heritage palettes into new experience-based settings.

References

Augello, M., Coniglio, C., & Rizzo, F. (2016). Culture-driven innovation: The fashion industry as a culture-intensive sector. Design Journal, 19(3), 401–420.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.

Chang, T. Y., & Wen, H. J. (2013). Cultural authenticity and design: The case of Taiwan's creative and cultural industry. International Journal of Design, 7(2), 55–66.

Guo, L. (2025). Reviving tradition: Integrating traditional Chinese colors into contemporary design [Doctoral dissertation, City University Malaysia].

Li, W., & Chen, X. (2020). Colour symbolism in Chinese folk art: A semiotic analysis. Journal of Chinese Visual Culture, 8(1), 23–41.

Ling, H. (2018). The symbolic grammar of Chinese colour: From imperial courts to contemporary branding. Asian Design Studies, 12(2), 88–103.

Liujinjing, X., & Nah, S. (2020). Guochao and the revival of Chinese traditional aesthetics in youth culture. Design Studies, 71, 100–117.

Mei-me, T. (2007). Color as narrative in Chinese regional folk paintings: A comparative study. Visual Studies, 22(1), 12–27.

Meng, X. (2023). Application of Chinese folk art colours in graphic design: Enriching contemporary visual communication. International Journal of Art and Design, 42(4), 310–325.

Nai-hui, C. (2009). The chromatic worldview: Colour philosophy in classical Chinese aesthetics. Journal of Aesthetic Studies, 5(1), 1–18.

Pan, Y., & Wang, Z. (2023). Analysis and application of traditional culture in modern design: Towards intentional cultural translation. Design and Culture, 15(2), 178–196.

Shi, Y., Pei, J., Li, X., Miyata, K., & Ma, L. (2021). Inheritance of Chinese traditional colour culture through modern human visual perception. Color Research and Application, 46(5), 1048–1061.

V&A Museum. (2020). Digital heritage and the future of colour: Material, technology, and sustainability. Victoria and Albert Museum.

Zhao, Q., & Yaacob, S. (2023). Navigating cross-cultural colour translation: Challenges and strategies in international design practice. Design Studies, 85, 101–119.

Zhuang, S. H. (2010). Bridging history and contemporary aesthetics: Traditional hues in modern Chinese design. Chinese Art and Design Review, 3(1), 44–59.