

Interpreting colour semiotics in Hong Kong's MTR stations: An analytical study

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Hong Kong is a place with abundant historical value that combines Western and Eastern cultures due to its unique historical background, such as its colonial history and ancient Chinese customs. And those regional cultural identities can be presented in the urban built environment. While colours are fundamental elements of our spatial perceptions and environmental experience, they are the substance of how we experience the physical world. The Mass Transit Railway (MTR) in Hong Kong exemplifies this with its vibrant mosaic colour designs featured across its stations. This article suggests viewing environmental colours as social semiotic resources to interpret the local characteristics and historical features through the colour selection in mosaics. This approach aims to deepen our understanding of these environmental colours' cultural symbolism and historical attributes. With a particular focus on urban MTR stations in Hong Kong, this study collected five MTR line station colour samples by applying the NCS colour system. The study identified five motivations for these colour practices from the perspectives of functionality, regional identity, cultural background, and colour regularities, illustrated with specific station colour examples. The research highlights how colour schemes in Hong Kong's MTR stations reflect regional cultural nuances and explains the significance of colours in spatial design and public interaction.

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Introduction

Colour can serve as a powerful communication tool in various art forms and the built environment. It possesses functional significance, particularly in urban settings, where it facilitates interaction with the public [1]. By guiding individuals and shaping regional identities, colour enhances the sense of place within a city [2]. The sense of colour and the chromatic environment are part of the urban experience and participate in everyday city life [3]. Colour is a crucial visual element that shapes the spatial atmosphere and influences the aesthetics of space [4-5]. Across various districts worldwide, colour selection varies geographically, reflecting regional cultural differences and aesthetic preferences. Swirnow [6] and Jean-Philippe Lenclos [7] proposed a theoretical foundation to explain the colour phenomenon since the geographical differences of cities, which cause the sunray at different angles and different durations of daytime, then influence the colour appearance of cities.

While numerous studies have explored the role of colour across different cultures, there remains significant academic scope to examine how local culture concretely manifests in urban colour schemes, and the specific roles culture plays therein [8-9]. Although the application and interpretation of colour have been widely studied across various fields from multiple perspectives—acknowledging factors such as personal preferences, contemporary trends or fashionable uses of colour, cultural backgrounds, the collective unconscious, symbolic meanings associated with colours, or biological responses to different colours [10]—only a limited number of studies have sought to determine the impact of these variables on colour use and interpretation in environmental design. Even fewer have investigated the specific choices of colour selection in urban public spaces [3], such as metro stations.

Recognising the strong bond between colour, culture, and the built environment prompts the questions addressed in this paper: *How does local culture influence colour expression in public spaces?* To explore this, the paper focuses on the Hong Kong MTR stations, which feature unique urban scenes characterised by diverse and colourful mosaic tiles, serving as essential visual elements for practical observation and in-depth analysis.

Based on the objective of exploring the design intention behind the colourful mosaic tiles of Hong Kong MTR stations from cultural and historical perspectives, this paper employs social semiotics theory [11] to understand the role of colour in facilitating communication in urban public spaces. Colour is considered a social semiotic resource for comprehending urban regional culture [12-13], and it is not merely a physical phenomenon shaped by different spectra that people perceive visually. For instance, blue often evokes images of the sky, while green conjures thoughts of grass. These associations are not inherent to the colours but are shaped by cultural and personal experiences [10, 14-15]. In this context, colours can be seen as signs capable of representing or signifying beyond their visual appearance, conveying information or concepts. Therefore, the colour selections of Hong Kong MTR stations provide a supportive illustration of this statement. This paper utilised the NCS colour system [16] to document colours, collecting samples of interior colour usage across stations on five MTR lines. The study categorised the logic of colour selection and explained the motivations behind these choices, summarising the underlying principles and patterns governing colour selection in these public spaces.

Literature review

Colour practice in public transportation spaces

The interplay of colour and chromatic environments is integral to the urban experience, influencing our daily life and shaping spatial identity [3]. Colour is a key element in defining the atmosphere and image of urban spaces [17], playing a vital role in reinforcing city identity. Consequently, colour intervention is frequently considered in designs aimed at initiating urban regeneration [18].

The use of colour in public transportation spaces such as subway stations, bus terminals, and airports is a widespread urban practice globally, attributed to several key reasons [19]. First, colour acts as an intuitive visual language that enhances orientation and wayfinding, with some colours even serving as landmarks to guide pedestrians. Second, colour is a cost-effective strategy that can swiftly regulate traffic flow, reclaim spaces for community use, and improve safe-distancing measures. Third, colour provides scalable and immediate solutions that, if practical, can be expanded to other locations on a larger scale. Fourth, colour promotes collaboration between the community and the city, fostering better coherence between public agencies and the communities they serve.

Subway space designs known for their unique use of colour can be found worldwide. For example, the Stockholm and Naples metro stations, as shown in Figure 1, are visually striking spaces that integrate artistic creations into their design. Each station boasts distinctive spatial characteristics that not only beautify the public transit environment but also allow commuters to experience public art during their daily travels.



Figure 1: Metro station in Stockholm¹ (left) and Metro station in Napoli² (right).

Similarly, this paper focuses on the Hong Kong MTR stations, where the entire subway system utilises colours' interventions to differentiate station interiors. This has become a unique urban phenomenon in Hong Kong, attracting numerous tourists who visit to take photos in front of the colour-coded signs at various subway stations.

Colour as semiotic resources

The term "semiotic resource" is crucial in the context of social semiotics, a concept derived from Michael A. K. Halliday's theory [11]. In this framework, semiotic resources are the actions and artefacts utilised in communication, endowed with the capacity for meaning-making. These resources are defined not only by their historical uses but also by their potential applications within the domain of social communication [13]. In the realm of semiotics, where signs are studied for their ability to represent or signify beyond their literal form, a considerable amount of research has focused on the domain of colour. Here, the concept of "substitution" is key—colours are viewed as signs that can stand in for other items or ideas [12]. This area of study delves into the relationships between colours and their potential representations, the established codes and associations linked to colours, and how the meanings of colours vary depending on their context and factors such as cultural background, religion and region [20-21].

The symbolic meanings of colours and their names reflect the mentality and culture of nations [22]. Previous research has analysed the unique meanings attributed to colours across diverse linguistic and cultural contexts, revealing findings that underscore the ambiguity and multifunctionality of colours. These meanings vary significantly in their expression across different languages. Colour carries various meanings and interpretations, making it a key representation of a nation's moral and aesthetic values [23]. The significance of colour in culture is shaped by a complex system of meanings influenced by a society's history, religion, climate, and environment [12]. For instance, the term "blue-blooded" in

¹ Image reproduced from <https://handluggageonly.co.uk/14-things-stockholm-sweden/> [last accessed 10 November 2024]

² Image reproduced from <https://www.railwaygazette.com/metros/art-and-architecture-mark-napoli-metro-line-6s-return/66955.article> [last accessed 10 November 2024]

English means aristocratic or socially superior, reflecting historical associations of blue with nobility. In contrast, in Chinese culture, yellow was the sacred colour reserved for the emperor, symbolising his unique authority and divine rule [24]. This variation highlights how colours can carry markedly different connotations and statuses in different cultural contexts.

Gunther Kress and Theo Van Leeuwen [25] were pioneers in exploring the concept of semiotic resources within visual communication. They argue that visual elements (they term "visual grammar") contain not merely aesthetic or technical compositions but culturally and socially loaded constructs that communicate specific messages and values. Visual design elements, such as images and paintings, also contain semiotic resources and "grammars" that use different components, including colour, shape, and texture, to make meanings. It is evident that the colour schemes of built environments are designed in a complex and nuanced manner, facilitating a direct "signifier-signified" relationship. For example, a red sign in a room typically signifies a danger alarm. Thus, viewing environmental colours as semiotic resources rather than static signs, allows for a more flexible approach in exploring the diverse messages they communicate.

Therefore, this study aims to emphasise how colour practices and expressions contribute to shaping the public environment under the richly diverse cultural backdrop of Hong Kong to showcase regional identities based on the view that environmental colours are considered semiotic resources. It also explores how colour is interpreted and presented in public spaces, serving as a tool for communication with the public within these environments.

Colour and spatial experience

Colours are essential visual elements that shape our daily experiences. They stimulate not only our sense of sight but also influence other senses. The intensity of colour stimuli and the context in which they are perceived play significant roles. Moreover, due to varying cultural contexts, the meanings of colours are perceived differently, which can significantly impact our spatial experience [9, 26].

A previous study by Meerwein [10] introduced a spatial colour scheme model, as shown in Figure 2. He identified six independent factors influencing our colour experience in the built environment in this model. The term Biological Reactions refers to the physiological responses in the brain triggered by visual stimuli from colours observed in the environment. In contrast, Personal Factors include our individual reactions and perceptions of colour, which are shaped by our personal experiences, personality, gender, colour sensitivity, etc. These factors mean that each person's experience of colour in an environment is unique and highly personalised.

One of the factors is the *Collective Unconscious*, a psychological concept introduced by Carl Gustav Jung [27], a Swiss psychiatrist and psychoanalyst. This theory expands our understanding of the human psyche by suggesting the existence of a part of the unconscious mind shared across cultural and individual boundaries. This shared content, known as archetypes, can also be associated with colours. For example, red is often linked to the archetype of the hero or warrior, reflecting its associations with energy, passion, and blood. Green frequently symbolises growth and renewal, aligning with the archetype of nature. These archetypes represent universal human experiences that arise naturally during the course of life.

There are numerous instances where colour *impressions*, *symbols*, and *associations* are interpreted similarly across different cultural backgrounds, making these elements crucial to our spatial colour perception. However, despite these common symbolisations of colour, interpretations can vary due to traditional, religious, philosophical, and other *cultural influences* and *mannerisms*.

Lastly, *trends, fashion, and style* significantly impact spatial colour experiences. New colour trends emerge globally almost every year, particularly influential in fashion and environmental design [3, 13]. Previous studies have indicated that these trends affect colour usage in building facades [28] and interior decoration [4], with stylistic preferences shaping these choices. For example, modern architectural styles often favour subtle and greyish tones, reflecting conservative colour selections.

These six elements, as proposed by Meerwein, collectively influence the spatial experience. They interact and contribute to the overall perception of colour in our environments. This study utilised Meerwein's model to analyse the colour representation in the Hong Kong MTR stations. By examining the colour phenomena in this urban setting, the research seeks to explore the cultural factors influencing the selection of colours and to consider these colours as semiotic resources that reflect Hong Kong's unique urban context. Additionally, the study aims to identify the objectives and motivations behind specific colour choices to understand how they shape chromatic practices, leading to diverse expressions in the urban landscape.

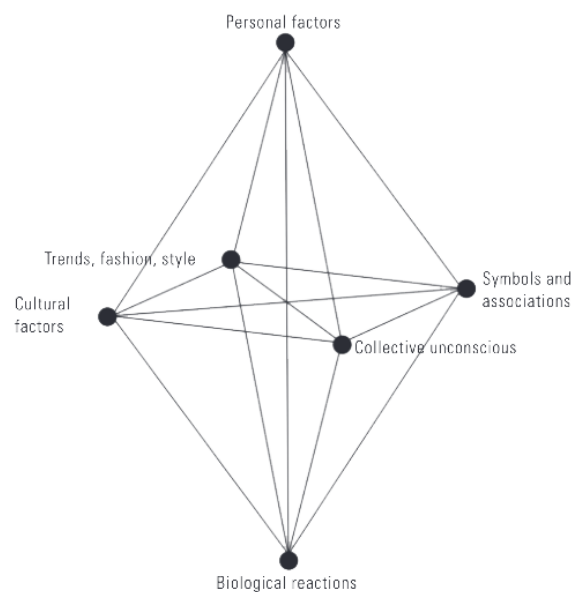


Figure 2: The spatial colour scheme model proposed by Meerwein [10].

Methods

Case study: HK MTR stations

Hong Kong, a city with a diverse cultural mixture, is characterised by a vibrant range of colour identities in its environment [29]. This distinct palette is noticeable in the façades of its buildings, urban infrastructure like pedestrian bridges and rest kiosks, and, not least, its Mass Transit Railway (MTR) stations. With around 4 million passengers per day, the MTR stations play an essential role in the city. The MTR stations are recognised for their vibrant and intricate mosaic designs, which incorporate a range of colours [30]. These mosaics are not only visually appealing but also have the potential to serve as wayfinding elements that help passengers navigate the stations. The mosaic designs in the MTR stations are the result of a unique cultural and historical context, becoming a distinctive urban aesthetic phenomenon that shapes the image of different urban districts. They foster a sense of place in various urban regions by applying colour. For instance, as illustrated in Figure 3, the vibrant interior colour

designs of the Jordan and Hung Hom stations not only serve as visual cues to remind passengers of their location but also enhance the environmental experience.



Figure 3: Colourful mosaic tiles at Hung Hom and Jordan MTR stations (by author).

Mosaic tiles emerged as a popular architectural feature in Hong Kong during the 1950s and 1960s, serving both decorative and protective purposes against the moist weather. The use of these colourful, small tiles added a unique and vibrant aesthetic to the cityscape [29]. The mosaic tiles were used on both the exteriors and interiors of residential, commercial, and public buildings. The use of colour in the mosaics was particularly attractive for designers at that time. The designers have used a wide range of colours, including bright and bold hues, to create a visually stunning environment.

In the case of the geography of colour, the practice of meaning-making primarily involves maintaining the colour scheme of the urban interface. This study collected various colour schemes from MTR stations in Hong Kong to understand their colour selection principles and to explore the semantic reflections derived from environmental colours.

Colour collection

To investigate the colour selection in Hong Kong MTR stations and determine their response to urban cultural and contextual characteristics, 54 stations along the five MTR lines in Hong Kong were selected for this analysis, with their locations depicted in Figure 4. The Five MTR line are Island line (IL), Tsuen Wan line (TWL), Kwun Tong line (KTL), Tseung Kwan O line (TKL) and South Island line (SIL).

In this study, the nominal colours were registered via a portable NCS colour scanner, while photos of the corresponding environment were also taken as the visual presentation material for further investigation. We employed the NCS Colourpin II [34] as our detection tool to gather nominal colours [31] present in the MTR stations, as depicted in Figure 5. This tool is best used with the NCS+ colour app [35] to capture onsite colour data accurately.

The NCS is a colour model entirely grounded in visual perception rather than a recognised system [14]. It is a globally recognised system for describing, communicating, and studying environmental colours. This system uses six fundamental colours - yellow, red, blue, green, black, and white - representing the pure colours humans perceive [32].

Every colour in the NCS is defined by two main attributes: hue and nuance. The hue of a particular colour is determined by its relative similarity to two of the chromatic elementary colours - blue (B), green (G), red (R), and yellow (Y). In contrast, the nuance of a colour is characterised by its blackness (its resemblance to black or white) and its chromaticness (its relationship to the most saturated level that bears no similarity to either white or black) [33].

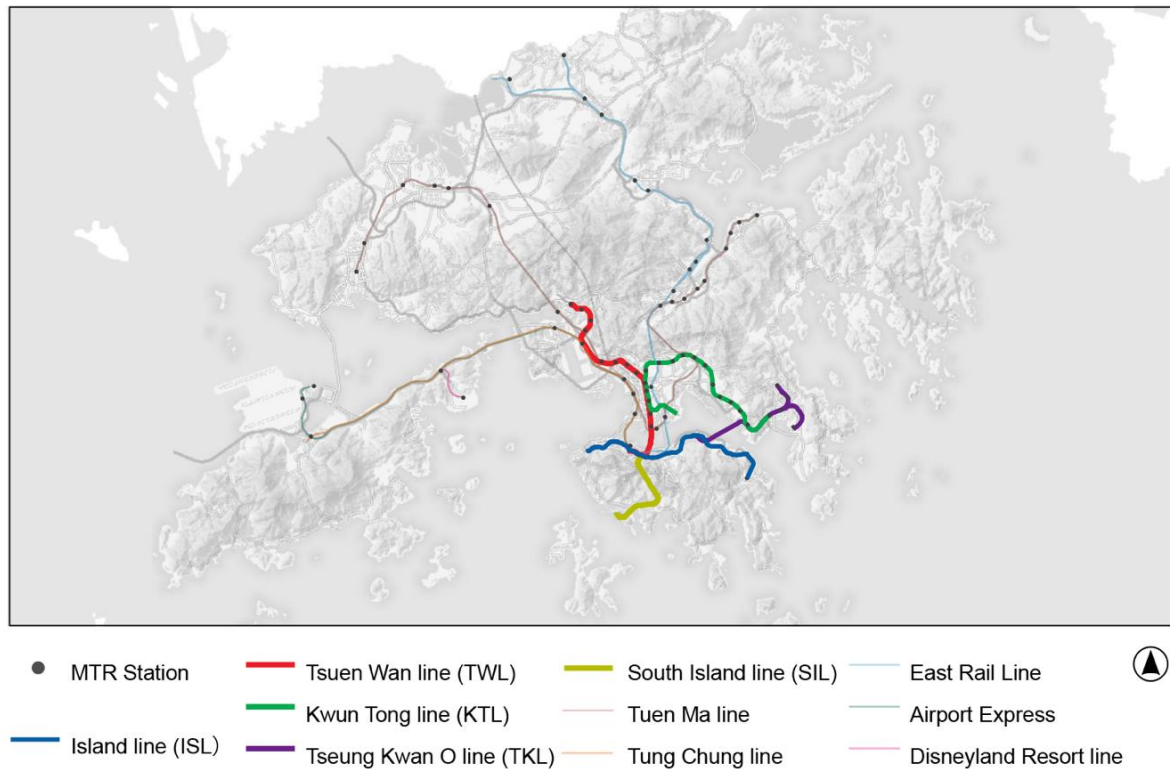


Figure 4: The MTR lines in Hong Kong and the selected lines for this study (by author).

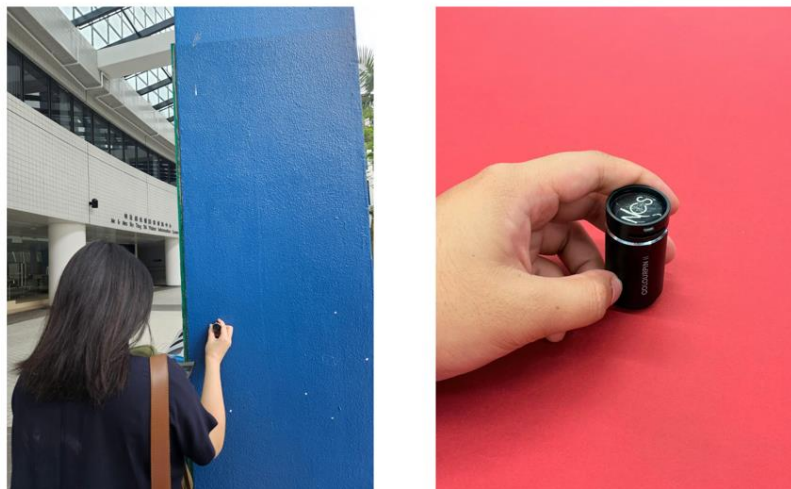


Figure 5: An NCS scanner is used to determine the nominal colour (by author).

Explaining colour scheme in MTR stations

This study focused on collecting the predominant mosaic tile colours from 54 stations across five lines of the Hong Kong MTR. The representative colours for all stations are displayed in Figure 6, arranged in the order of the stations by the metro line. While some stations feature monochrome schemes as their primary colour, others incorporate multiple main colours that contribute to the interior decoration of the station. This arrangement provides a comprehensive overview of the variety and thematic use of colours within the MTR network.

MTR Line	Station Name	Color Code	Transfer Station	Color sample	MTR Line	Station Name	Color code	Transfer Station	Color sample
ISL	Chai Wan	S6020-G50Y			KTL	Whampoa	S1040-R80B		
ISL	Heng Fa Chuen	S1580-Y80R			KTL	Whampoa	S1555-R80B		
ISL	Heng Fa Chuen	S2570-Y90R			KTL	Whampoa	S2020-B		
ISL	Shau Kei Wan	S5040-R70B			KTL	Ho Man Tin	S3502-G	Y	
ISL	Shau Kei Wan	S4055-R70B			KTL	Ho Man Tin	S2005-G20Y	Y	
ISL	Sai Wan Ho	S2070-Y10R			KTL	Ho Man Tin	S5000-N	Y	
ISL	Tai Koo	S1580-Y90R			KTL	Shek Kip Mei	S4040-G50Y		
ISL	Quarry Bay	S4040-B60G	Y		KTL	Kowloon Tong	S1555-B10G	Y	
ISL	North Point	S1080-Y40R	Y		KTL	Lok Fu	S5020-G50Y		
ISL	Fortress Hill	S3560-G20Y			KTL	Wong Tai Sin	S1070-Y		
ISL	Tin Hau	S0585-Y70R			KTL	Diamond Hill	S8502-R	Y	
ISL	Causeway Bay	S2020-R			KTL	Diamond Hill	S5005-R20B	Y	
ISL	Causeway Bay	S4020-R40B			KTL	Choi Hong	S5030-B		
ISL	Wan Chai	S1050-G70Y			KTL	Choi Hong	S5040-G20Y		
ISL	Admiralty	S2065-B	Y		KTL	Choi Hong	S3050-R80B		
ISL	Central	S1580-Y90R	Y		KTL	Choi Hong	S6020-R50B		
ISL	Central	S2570-Y90R	Y		KTL	Kowloon Bay	S1580-R	Y	
ISL	Sheung Wan	S2030-Y20R			KTL	Ngau Tau Kok	S4020-G30Y		
ISL	Sai Ying Pun	S3030-R60B			KTL	Kwun Tong	S0502-B		
ISL	HKU	S1030-G50Y			KTL	Lam Tin	S2050-B		
ISL	Kennedy Town	S2030-B40G			KTL	Lam Tin	S3060-B		
TWL	Tsim Sha Tsui	S0575-G90Y			TKL	Yau Tong	S1075-G90Y	Y	
TWL	Jordan	S5030-B90G			TKL	Tiu Keng Leng	S1070-G70Y	Y	
TWL	Jordan	S2050-G40Y			TKL	Tiu Keng Leng	S1070-G90Y	Y	
TWL	Yau Ma Tei	S4010-G90Y	Y		TKL	Tsuen Kwan O	S1085-Y90R	Y	
TWL	Yau Ma Tei	S2005-G60Y	Y		TKL	Tsuen Kwan O	S2570-Y70R	Y	
TWL	Mong Kok	S1580-Y80R	Y		TKL	Hang Hau	S1515-R90B		
TWL	Mong Kok	S3005-G80Y	Y		TKL	Hang Hau	S1050-B		
TWL	Prince Edward	S4010-R10B	Y		TKL	Po Lam	S1080-Y40R		
TWL	Sham Shui Po	S4040-B80G			TKL	LOHAS Park	S2020-R70B		
TWL	Cheung Sha Wan	S4030-Y			TKL	LOHAS Park	S7010-R30B		
TWL	Lai Chi Kok	S0585-Y70R			TKL	LOHAS Park	S5010-R30B		
TWL	Mei Foo	S2050-B			SIL	Admiralty	S2005-Y30R	Y	
TWL	Lai King	S1080-Y90R	Y		SIL	Ocean Park	S3030-B		
TWL	Lai King	S3060-R	Y		SIL	Ocean Park	S1040-B10G		
TWL	Kwai Fong	S6030-G30Y			SIL	Ocean Park	S3050-B		
TWL	Kwai Hing	S7020-Y10R			SIL	Wong Chuk Hang	S0505-G80Y		
TWL	Tai Wo Hau	S2050-G50Y			SIL	Lei Tung	S1070-Y40R		
TWL	Tsuen Wan	S2070-R			SIL	South Horizons	S3060-G60Y		

Figure 6: Five MTR line stations mosaic tile colour samples.

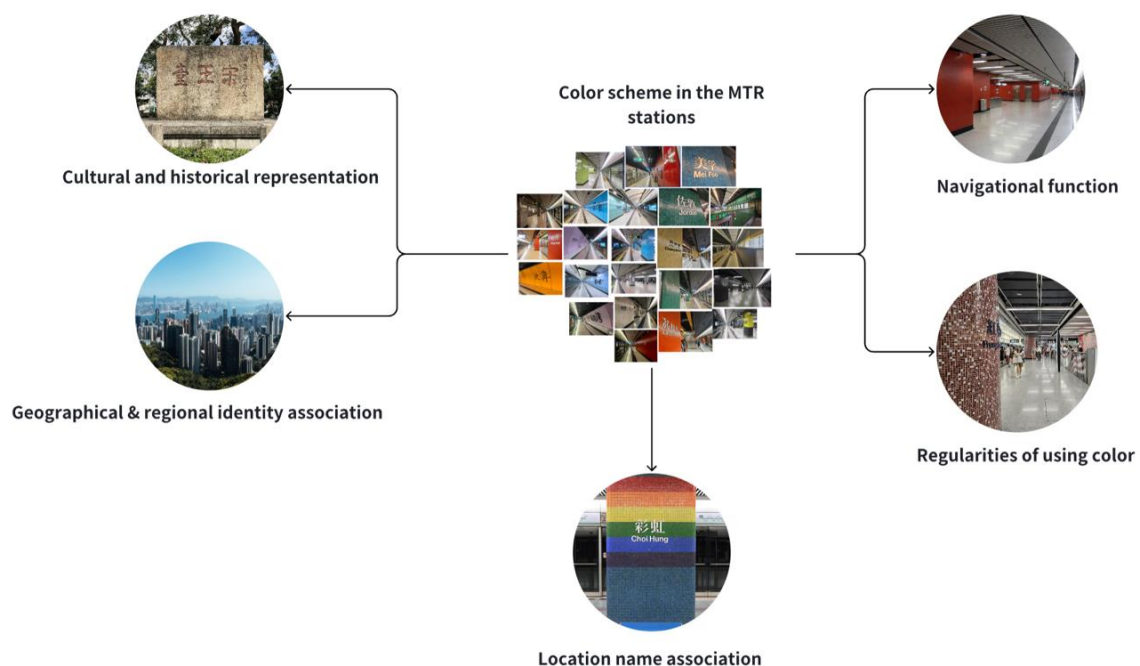


Figure 7: Key motivations behind colour schemes in Hong Kong MTR stations.

This section discusses the empirical application of colour in real scenarios, presenting key findings on colour interpretation based on social semiotic theory and the spatial colour scheme model reviewed earlier. The study identifies five primary motivations behind the colour schemes in MTR station mosaic tile designs. Since public space design often embodies multiple design intents, the motivations for colour choices at a station cannot be attributed solely to any single factor. Therefore, this study categorises the logic of colour and explains the motivations for station colour choices, considering the historical background, geographical features, cultural identity, transportation functions, and local toponymy of the station area. These factors help infer the logic behind colour choices, showcasing the distinctive features of MTR colour selection and the role of colour in conveying intended messages (see Figure 7).

Navigational function needs

For the Hong Kong MTR system, with its complex network of intersecting rail lines, transfer stations serve as crucial transportation hubs where clear visual guidance is essential for effective navigation (the transfer station colours depicted in Figure 6, marked with 'Y' in the transfer station row). The selection of spatial colours at these hubs tends to be unified by the use of striking hues, especially in stations with high foot traffic. For example, Central Station employs vivid reds (S1580-Y90R and S2570-Y90R) as its primary colour for spatial definition. Mong Kok Station, another bustling transfer location, uses a bright shade of red (S1580-Y80R) as the thematic colour for its interior decor. Similarly, Kowloon Station, a crucial link to maritime transport, also incorporates red (S1580-R) in its design.

Geographical and regional identity

Through the investigation of the main geographical features of MTR stations, this study also discovered that some interior colour choices of the stations reflect their local geographical characteristics. As proposed by Meerwein in the colour scheme, which discusses the six main factors involved in spatial colour cognition, two primary factors—symbols and associations and collective unconscious—can be used to explain the logic of colour selection based on local geographical and regional features. In MTR stations, some place names directly use geographical feature names, such as Fortress Hill, and the geographical feature of the hill in this station leads to the logical choice of a naturally associative green (S3560-G20Y) as the theme colour of the station. Similarly, the Hong Kong University (HKU) station, which is near a mountain, also chose a greenish colour (S1030-G50Y). Likewise, stations located in the harbour or coastal areas, which evoke the sea, use bluish colours, such as Whampoa station, which uses three shades of blue (S1040-R80B, S1555-R80B, and S2020-B). Kennedy Town, situated on the western side of Hong Kong Island and along the coast, also uses blue (S2030-B40G) in its station colour selection, as does Mei Foo station, which is also located along the coast, using S2050-B.

The strategic use of colour in subway station designs not only triggers associations in people's minds but also communicates specific geographic characteristics of the location the station serves. This approach utilises colour as a form of semantic communication, bridging the environment and its users. The use of colour in such a context exemplifies how visual elements can carry meanings and convey messages effectively in public spaces, enhancing the user's experience by connecting them to local cultural or geographical narratives even within the underground setting.

Location name association

In addition to the station names, there are two logical approaches to using colour in this classification. The first approach directly incorporates colour into the station names. For instance, in Chinese, "Lam" (藍) from Lam Tin means blue, and "Wong" (黃) from Wong Tai Sin means yellow. Consequently, colours corresponding to these meanings, such as bluish (S2050-B and S3060-B) and yellowish (S1070-Y), are used as the representative colours inside the stations. The second approach establishes a connection between colour and location names through associations evoked by the station names. This involves extracting certain words from the names that remind people of specific colours when they see the corresponding shades. For example, the Yau Ma Tei station in Chinese includes "Yau" (油), which means oil, leading to the selection of colours associated with oil (S4010-G90Y and S2005-G60Y) as the station's representative colours. Similarly, Cheung Sha Wan station includes "Sha" (沙), which means sand, resulting in the choice of a sandy colour (S4030-Y). Likewise, Lai Chi Kok, where "Lai Chi" refers to a type of dark red fruit, uses a colour close to lychee (S0585-Y70R). Diamond Hill station uses colours reminiscent of a diamond's deep black (S8502-R and S5005-R20B). This method of selecting colours based on Chinese place names that evoke specific colours enhances the visual identity of the platforms and aids in station recognition by passengers.

Cultural and historical representation

This study also discovered that some stations have chosen colours that reflect their locations' historical and cultural characteristics. Hong Kong, a city with a colonial past, showcases a rich blend of traditional Chinese cultural elements and British colonial influences. This blend is evident in the city's architecture, which features both traditional Chinese temples and British-style architectural designs. The cityscape is vibrant and diverse. Reflecting such characteristics, MTR stations associated with historical sites have selected colours that resonate with their heritage. A notable example is the colour choice for Tin Hau Station. Named after the Tin Hau Temple, which is located in the area within the Wan Chai District on the northern side of Hong Kong Island by Victoria Harbor, the temple is dedicated to Mazu, the deity worshipped by fishermen and seafarers in Chinese religious culture. It is a site of frequent worship. Tin Hau Station's choice of the fiery hue S0585-Y70R is reminiscent of the incense in the temple, reflecting the station's connection to its cultural context.

Regularities of using colour

Besides the motivations for colour design in Hong Kong's MTR stations mentioned above, this study also identifies certain regularities in colour selection and coordination among different stations. For instance, adjacent stations on the Island Line often use contrasting colours. As shown in Figure 6, the station colours are arranged in sequence, and their positions in the NCS Colour System circle can be referenced in Figure 8. It's evident that neighbouring stations typically choose hues with significant differences. For example, Chai Wan Station uses a greenish colour (S6020-G50Y), while Heng Fa Chuen Station opts for reddish colours (S1580-Y80R and S2570-Y90R), and the nearby Shau Kei Wan Station selects bluish colours (S5040-R70B and S4055-R70B). These colour choices among adjacent stations create a clear visual distinction, aiding passengers in differentiating between stations. Additionally, another regularity in colour selection is that a single station may adopt various shades, but the different colours chosen for the same station are similar and located within the same hue quadrant (see Figure 8).



Figure 8: Colour samples from Island Line MTR stations as displayed in the NCS colour system.

Conclusions

This paper presents a semiotic approach to interpreting environmental colour and understanding colour meanings within the public spaces of the Hong Kong MTR stations. In this framework, environmental colour is deciphered as a motivated sign that responds to and is shaped by regional cultural identities for the purposes of social communication. Utilising the Colour Spatial Model proposed by Meerwein, this study employs the NCS colour system as a tool to collect colour samples from stations across five MTR lines, identifying five primary motivations behind the colour schemes used in MTR station mosaic tile designs. The findings indicate that the colour usage in Hong Kong MTR stations is influenced by linguistic culture and regional identities. Additionally, the spatial selection of colours is tied mainly to the meanings associated with these colours and the collective unconscious of the people. Place names have become a significant factor in colour selection; some stations directly utilise colours in their names for interior design, while others choose colours corresponding to keywords in their names. This discovery supports the theory of geographical colour distribution [6], suggesting that urban colour can serve as a semiotic resources for understanding urban characteristics [13]. Colours also play a crucial role as visual symbols in urban public environmental communication. At the same time, this study also found regularities in colour application across MTR stations. Adjacent stations use colours from different hue ranges to visually distinguish them from one another, while colours within the same station tend to be similar. These various motivations for colour use collectively create a rich mosaic of colours in Hong Kong MTR stations, presenting and explaining this unique urban phenomenon.

This paper adopts an innovative perspective in observing urban public space colours, offering new insights and methods for the study of spatial colour. In future research, this approach holds potential as a basis for understanding urban characteristics and regional culture, with the semiotic meanings of colours warranting further exploration in urban spaces.

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