

STARBUCKS' EXPRESSIVE SPACE: READING THE VISUAL TECTONIC OF ARCHITECTURE DRIVEN BY COLOUR SYSTEM

Resza Riskiyanto¹
Gustav Anandhita²

¹Universitas Diponegoro
Indonesia

²Universitas Katolik Soegijapranata
Indonesia

ARSNET, 2022, Vol. 2, No. 1, 66–81
DOI: 10.7454/arsnet.v2i1.51
ISSN 2777-0710 (online)
ISSN 2777-0702 (print)

Abstract

This paper argues that colour can be seen as a tectonic instrument to visualise spatial order and generate the surface configuration towards the overall form. Colour plays an important role within a space formation system, more than just a decorative element. Colour demonstrates performance that blurs the surface, presents spatial continuity, or emphasises the presence of space through a well-arranged achromatic-polychromatic colour composition. This paper explores various forms of colour combinations in Starbucks' interior settings to reveal the performance of colour as part of the functional and expressive space formation system. The study utilises Hue, Saturation, and Lightness (HSL) analysis towards multiple case studies of Starbucks to find out to what extent the formation of a colour system that is specifically made for the identity of a product can be implemented on an architectural scale. The findings introduce another logic of colour systems combination that can be used strategically as a basis for designing architectural spaces.

Keywords: colour system, visual tectonic, expressive space

Correspondence Address: Resza Riskiyanto, Jl. Prof. Soedarto SH, Tembalang, Semarang, Indonesia. Email: reszariskiyanto@lecturer.undip.ac.id

Introduction: Architectonic of colour

Colour is continuously coordinated with form, but not vice versa. Current discourse has highlighted how the idea of form largely precedes the existence of colour (Kane, 2015; Ozenfant & Corbusier, 1918). In general, colour is not seen as a potentially important instrument for constructing form because colour is often seen as nothing more than a decorative aspect after the form is created. The presence of shape is always prominent, while the colour entirely depends on specific properties such as the shape and type of material. For example, in making a kettle (Alexander, 2002), the process emphasises exploring form to respond to context without considering the presence of colour as part of the system. Likewise, with the concept of space formation, colour usually comes last, following the form and material chosen. One cannot easily imagine the presence of colour independently without being attached to a particular form. Pedrosa (2009) mentioned that colour has no material existence, hence exists as immaterial. He defined colour as the sensation produced by a specific neural organisation under the action of light.

Gropius introduced some initial tectonic ideas of colour as part of the colour studies in the Bauhaus school program (Gage, 1982). Such ideas have also been demonstrated within the De Stijl movement, which can be seen in Piet Mondrian's abstract painting that introduced colour as a determinant of space instead of its traditional decorative function (Gage, 1993). Although they do not specifically mention their relationship to tectonics, it can be argued that both discourses indirectly lead to the awareness of colour theory and architectural practice. The idea of tectonics developed rapidly with the growing concern on the relationship between materials in the construction as the expression of 'form,' leading to the understanding of tectonic as the art of joints (Frampton & Cava, 1995). Nevertheless, the presence of colour has not been widely considered an instrument with potential in tectonic practices. Whilst this paper does not aim to discuss every colour system that has been used in designing space, it instead offers the need to rethink the performance of colour in relation to the tectonic ideas of architecture.

This paper attempts to re-introduce the position of colour in the tectonics perspective to find out its role in the spatial system and the possibility of colour being used as one of the basic elements in defining space. The performance of colour is a vital part of the tectonics articulation in translating the program (Harahap, 2021). Some exploration of the architectonic of colour was previously introduced by de Heer (2009) when reconstructing the polychromic working method in the purist architecture of Le Corbusier. The argument of visual tectonics to be conveyed in this study is that colour can potentially be used as an instrument to visualise spatial order and generate the form of a surface. Designers often make intuitive choices and decisions through the product-based colour recommendation system, but when it is applied to architectural space, an

entirely different experience may emerge. There are shifting perspectives when we simply interpret a product's colour from the outside of the objects in comparison to being inside among the coloured interior space.

The above discussion leads to several questions about the colour mechanism as a space-forming instrument with a combination system. How do the colours combined when the form of the surface has yet to be defined? Does the proportion of each colour become important to quantify? How to join different colours to form a spatial configuration? Exploring several case studies of Starbucks' interior spaces can help to find the variety of space settings constructed with varying combinations of colours. This exploration aims to specifically find out to what extent the formation of a colour system that is specially made for the identity of a product can create an expression of tectonics on an architectural scale.

Colour system and its' performance in interior space

Colour is fundamental to the visual experience of spatial environments, as "interiors are seen in colour" (Dernie, 2020, p. 88). The use of colour in interior space is complicated (Murata, 2004), and understanding colours enable a situational understanding of space. Choosing a colour in a design greatly affects the space's interior design. Colour can add perceiving depth weight to the surface, modify the proportion of space, and create an either calm or exciting space. For Le Corbusier, colour selection was a material-based, functional consideration. Specific colours have some properties that stimulate in a lively and dynamic way by using pure colours of the spectrum; while others are exceptionally constructive through natural colours (de Heer, 2009).

Various discussions of colour in architecture have been carried out in different ways and purposes. Caivano (2006) reveals several points that show the sequence of knowledge development regarding colour and space, which started from its material aspects: pigments and their mixtures, the use of colour with a pretension of objectivity, until colour studies that appeal to colour science. But most of the studies and the application of colour systems to architectural design are related to spatial perception, psychology, and atmosphere (Linton, 1999). In this context, one that is quite outstanding is the idea of architectural polychromy, which Le Corbusier developed as a translation of the pure language of colour into architecture (Katoh, 2000; Rüegg, 2015).

Le Corbusier saw colour as an important aspect that could be systematised. He proposed the idea of polychromy as a form of logical reasoning to design architectural space by establishing a colour system (de Heer, 2009). It can be seen in most of his work, which treated architecture as the 'machines for living in' (Atmodiwirjo & Yatmo, 2015; Le Corbusier, 1986). He introduced the Salubra colour system, which reflects Purist polychromy used as an instrument to match hues and shades across the spectrum in searching for harmony laws.

Bruno Taut is one of the pioneers of early twenties polychromy-driven architecture, who states that the idea of polychromy cannot be related to space but to planes (Klinkhammer, 1999). Those thoughts align with Le Corbusier's, where colour plays a vital role in defining the plan and section in constructing space (Rüegg, 2021) equally. It has a spatial quality that defines space as constructive, dynamic, and transitional. The ability of colour to represent space and objects is related to its visual ergonomics ability to describe the objects, the relationship between objects and the space we occupy, and influence changes in the brain based on aesthetics (Long, 2014).

Serra et al. (2016) study on Le Corbusier's colour combinations through natural colour system analysis allows us to understand the perceptive variables of colours (hue, blackness, and chromatics) used as the combination criteria with specific spatial functions: to enhance the perception of depth or weight, to create inviting atmospheres, and to create unity, among others. Cool and warm hues were essential in Le Corbusier's thinking. Le Corbusier's cool and warm colour opposition is more conceptual than perceptive, represented by the red-blue colours. A combination of red with browns or oranges, for example, fixes the presence of the wall, affirms its exact position, dimension, excites, and requires that it be in a whole light. Moreover, the blue and green combination is attached to subjective sensations; it creates space, is calming, and vibrates intensely in the twilight. Likewise, light blue walls recede, and brown elements stabilise. It makes the walls' distance become imperceptible and removes its solid quality by interposing a particular atmosphere.

Le Corbusier also wants to avoid colours that are not entirely architectural, which can neutralise the visual effect of architectural forms (Serra et al., 2016). It is essential to insert that one of the fundamental principles governing Le Corbusier's polychromy is his desire to submit architecture to correct compositional order. It is so that the colours generate a hierarchy in the interpretation of the different pure volumes that make up a building and help in the reading of architecture.

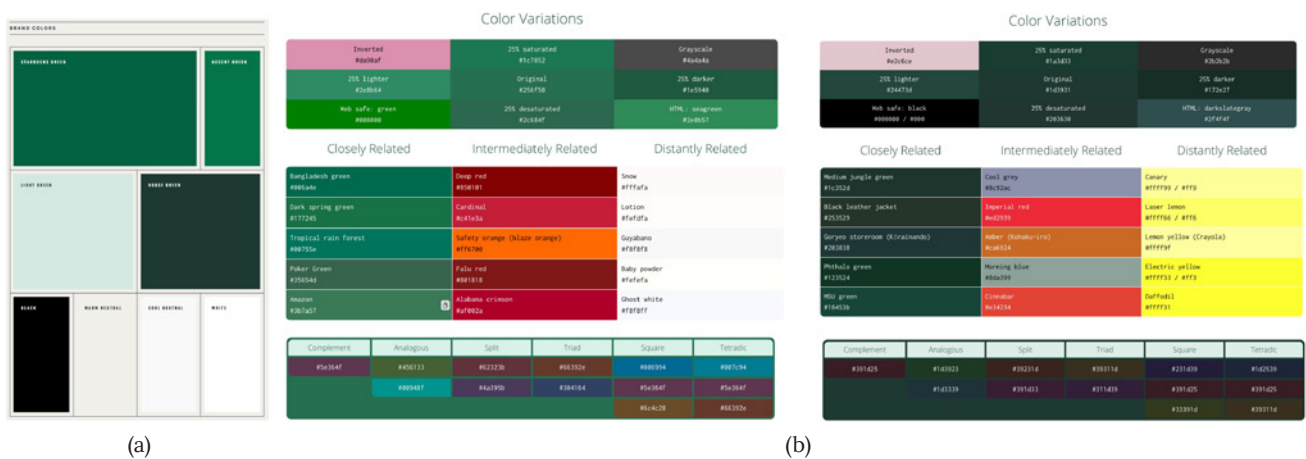
Le Corbusier's colour combination is not an open system that can combine any colour. Instead, some specific manuals limit the combination of architectural colours according to a uniquely personal criterion, which his sensitivity can only explain as an architect and a painter and from his desire to rationalise most of his creative processes. He believes that the beauty in architecture, including colours, responded to a series of universal laws based on numbers, which could be known and studied. Le Corbusier's thinking of colour systems enables further understanding of some colour combination rules as part of spatial production.

From product to architectural space

Starbucks was chosen as a case study to find out the underlying order of colour combinations used by studying the similarities and contrasts of their perceptive variables. Such selection also helps determine the extent to which the visual tectonic colour

system initially used for brand design is implemented on an architectural scale. As Starbucks presented in their creative design guideline (Starbucks Coffee Company, 2022), they have evolved to meet the beautifully diverse customers worldwide, by introducing a relatively fresh new design system that maintains the core elements of the brand image, while keeping their customers' experience central to its creative expression.

The coffee brand thoughtfully incorporates the beautiful, expressive moments with the calm confidence in ways that are optimistic, joyful, and recognisably Starbucks. They only used the secondary colour of green, and it mainly saturated the brand's colour rather than the primary colour (red, yellow, and blue). This specific use of colour brings purpose and cohesion to all customers' interactions with the brand by consistently utilising a palette of greens rooted in their iconic green siren logo (Figure 1a). Through the following abstraction of their iconic green, we can identify some analogues and contrast colours representing their creative expression that marries the artful core of their brand with their customers (Figure 1b).



This study investigates eight case studies of the newest Starbucks outlets in multiple places in Indonesia to reveal how the brand evolution occurs in its interior setting, demonstrating the implementation of their expressive value. The study collected images from the official Instagram account of Starbucks Indonesia to acquire an objective perspective on how they represent their space to the public. The investigation was conducted by classifying the Starbucks interior setting based on their colour system, representing their four creative expressions. Each of the settings was analysed through the Hue, Saturation, and Lightness (HSL) analysis, a means of analysis commonly used for digital image processing to generate colour proportion and relation of an image.

HSL analysis is a natural representation of the colour model—close to the physiological perception of the human eye—in which colours are decomposed according to a physiological criterion. Hue, Saturation, and Lightness have an important role in the colour settings we use in the objects and spaces of our surrounding environment. In film and photography

Figure 1. Colour palette of Starbucks Brand (a) and its abstraction colour (b) (Image by Starbucks Coffee Company)

studies, these three variables are qualitatively used to describe the emotional state of a photo or film scene. In this study, the HSL analysis helps to figure out the expressive emotions of the interior setting developed from the colour combinations within the space.

Range values of expressiveness

Starbucks' creative expression spans the entire spectrum from functional to expressive. The scale measurement of such spectrums depends on how the application of colour could meet the customers' needs along their journey. They simplify things that are useful/functional to help customers find what they are looking for. It allows new priorities to come to the forefront through a more dynamic expression. Being functional doesn't mean being sterile; instead, it means being clear and helpful, organising things and anticipating their audience's needs. Such creative expression aims to help customers have an easy, enjoyable experience in-store and online. In Starbucks, colour has been used primarily for wayfinding and order through seamless integration with the need to call attention to the product.

Starbucks' colour systems were designed to express the four seasons: spring, summer, autumn, and winter (often called nitro by the brand). Expressiveness is translated through the incorporation of their brand personality with day-making thoughts. The use of expressive moments on the products aims to project fresh, relevant, and interesting qualities. The coffee brand seeks to illustrate a passionate coffee story in its space by applying the colour system of its product, presenting a cohesive experience. For example, the atmosphere of the space is expressed with natural colours, which is also illustrated in its product. Nevertheless, various other expressions are applied in space, from vibrant and colourful brand images to playful yet restrained.

In reading the expressive value of Starbucks, we can indicate it through the level of Hue, Saturation, and Lightness of the colour combinations applied to the interior space. Hue shows the colour shift settings. Saturation shows the sharpness of the colour level of an object that tends to be pure or dirty (grey), while lightness shows the dark and light settings based on mixing with white colour. HSL analysis is read through the x, y, and z axes, divided by the position of hue and saturation on the x and y-axis and the lightness on the z-axis. Hue has a value between 0 to 360 degrees. For example, red is at level 0 degrees; yellow is at 60-degree; green is at 120 degrees, while at 180 degrees is cyan. Level 240 is blue, then 300 is magenta. The saturation and value range from 0% to 100%. Saturation follows a percentage that ranges from 0% to 100% as the colour is the sharpest. In addition, the colour correction value for lightness ranges from 0 for the darkest shade to 100 for the lightest one (Figure 2). The following discussion outlines the HSL analysis in the expression of each season proposed by the brand.

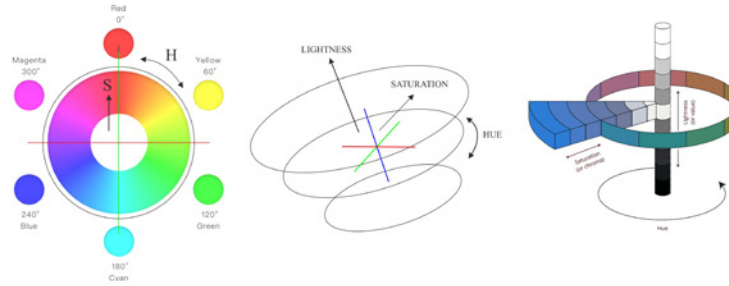


Figure 2. Hue, Saturation, and Lightness reading on x, y, and z axes colour (Image by author)

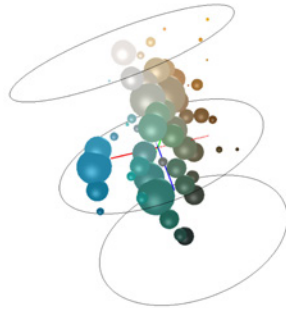
Expressive space 1: Spring

As mentioned earlier, Starbucks uses a secondary colour (green) as their basic colour rather than any primary colour. In expressing the spring, we can see that Starbucks' tends to use analogous colours of green with various saturation (Figure 3a). An analogous colour palette is formed by pairing one primary colour with the two colours directly next to it on the colour wheel. We can indicate the hue position in the chromatic circle shown by the HSL analysis (Figure 3b). The numbers next to the chromatic circle stated the level of Hue, Saturation, and Lightness). Analogous structures do not create themes with high contrasting colours but can use them to create a softer, less contrasting design. The harmony between green, blue, and brown shades creates a visual that feels warm and fresh as the product wants to express. Other chromatic colours, such as coral and blush, complete the season's expression to describe the joy of the spring season.



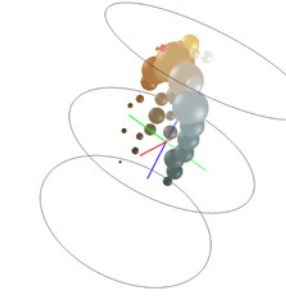
Figure 3. Starbucks' colour palette for spring (Image by Starbucks Coffee Company)

We can see how the spring colour palette is applied through the green-brown analogue in some of the interior settings at this new Starbucks Cipete outlet. HSL analysis in one of the interior settings shows that colours with almost the same saturation level are applied as the main elements forming the space (Figure 4). The green analogue colour is applied to the surface, the ceiling, and walls with a saturation value between 108 to 151. Its combination with brown colour with almost the same saturation on the ground floor shows continuous harmonisation to give a warmer feel to the room. The colour with the highest saturation level, blue (187), was applied to one of the furniture objects. Such application provides a contrasting colour among other colour harmony colours so that the counter desk can become a point of interest in space, thus assisting the wayfinding process.



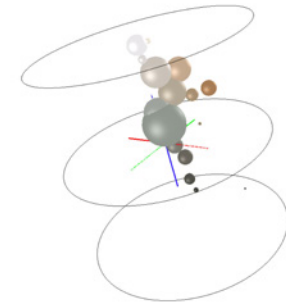
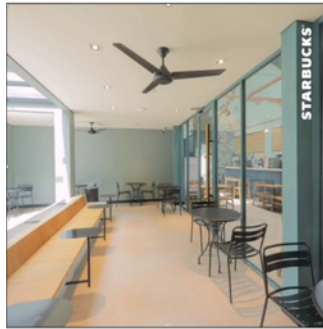
[179:168:127] : 269
[187:189:176] : 202
[35:117:108] : 172
[138:142:116] : 139
[22:134:175] : 134
[55:132:128] : 121
[117:171:151] : 111
[212:190:152] : 103
[107:118:90] : 101
[206:195:179] : 99
[209:225:271] : 91
[162:130:93] : 91
[140:177:148] : 87
[160:171:141] : 84
[187:138:91] : 84
[91:149:148] : 82
[107:149:113] : 81
[41:150:187] : 79
[95:87:62] : 77

Figure 4. HSL analysis on interior settings of Starbucks Cipete 1 (Base image on the left took from the Instagram official account of Starbucks Indonesia)

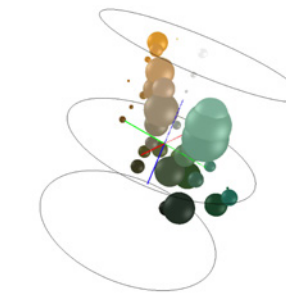


[213:172:112] : 414
[175:187:187] : 324
[209:193:179] : 318
[184:124:60] : 228
[198:150:90] : 217
[142:168:169] : 146
[121:148:143] : 129
[94:111:106] : 118
[184:170:149] : 115
[101:128:123] : 108
[164:109:51] : 100
[247:209:231] : 100
[133:115:77] : 90
[231:168:116] : 68
[76:97:94] : 74
[130:133:112] : 62
[161:133:97] : 52
[226:172:96] : 46
[112:96:69] : 43

Figure 5. HSL analysis on interior settings of Starbucks Cipete 2 (Base image on the left took from the Instagram official account of Starbucks Indonesia)



[147:155:144] : 710
[165:170:164] : 328
[167:174:152] : 292
[209:176:145] : 239
[253:248:231] : 147
[123:123:113] : 119
[101:96:86] : 106
[174:125:79] : 103
[175:147:112] : 64
[73:73:63] : 60
[56:57:47] : 11
[137:118:67] : 5
[31:25:11] : 2

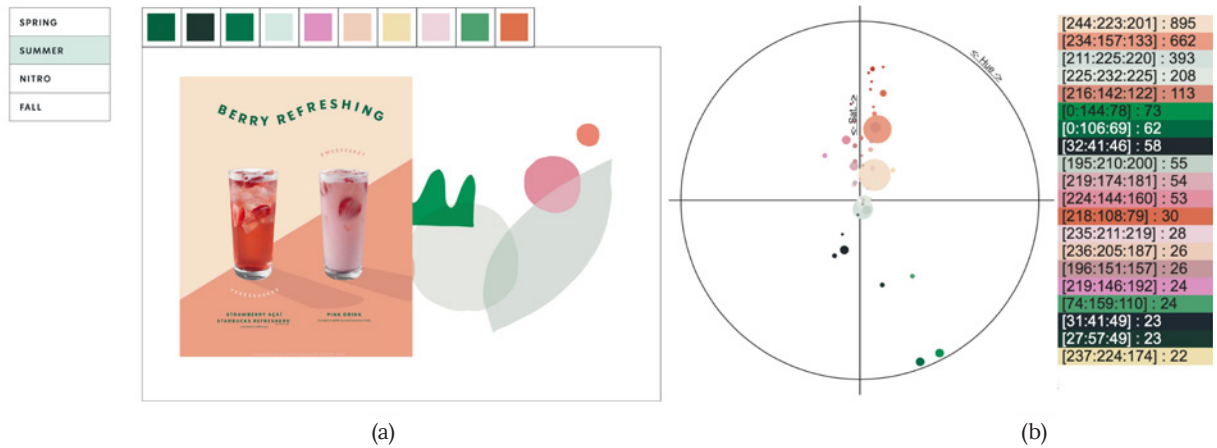


[98:153:125] : 366
[114:171:142] : 353
[158:141:110] : 221
[18:34:22] : 212
[189:195:167] : 200
[58:76:50] : 181
[32:67:23] : 159
[200:153:95] : 152
[90:133:104] : 125
[9:56:26] : 113
[136:123:95] : 112
[176:137:90] : 110
[74:111:72] : 97
[165:155:119] : 94
[228:151:92] : 89
[54:81:24] : 62
[81:88:40] : 57
[7:12:6] : 55
[49:91:68] : 46
[18:96:76] : 45

The green-brown analogue colour is consistently used in another part of the interior settings (Figure 5). The various shades and tint of green for the vertical surface are analogous to the brown horizontal plane on the floor. Some settings are combined with white to neutralise other colours and emphasise the continuous warm space. While in another setting, the different shades of green are implemented when the green wall meets the objects. The lowest saturated colour of green is implemented on the objects, with similar aims to provide a contrasting colour among other colour harmony colours. Therefore, the objects can become a point of interest in space and create a particular depth.

Expressive space 2: Summer

The summer season is expressed not only through the analogue colours but also by some complementary colours (Figure 6a). There is various saturation of green and peach being used in the system. HSL analysis of the summer colour palette indicated the position of the analogue colour of green-yellow and peach that complemented mauve and orange (Figure 6b).



Harmonisation of light colours creates a bright space experience that the product wants to convey. Starbucks' green is no longer the dominant colour in this expression but instead replaced by pink, peach, and yellow to depict enthusiasm and happiness. The presence of these colours completes the season's expression, describing the warmth of the summer experience.

Figure 6. Starbucks' colour palette for summer (Image by Starbucks Coffee Company)

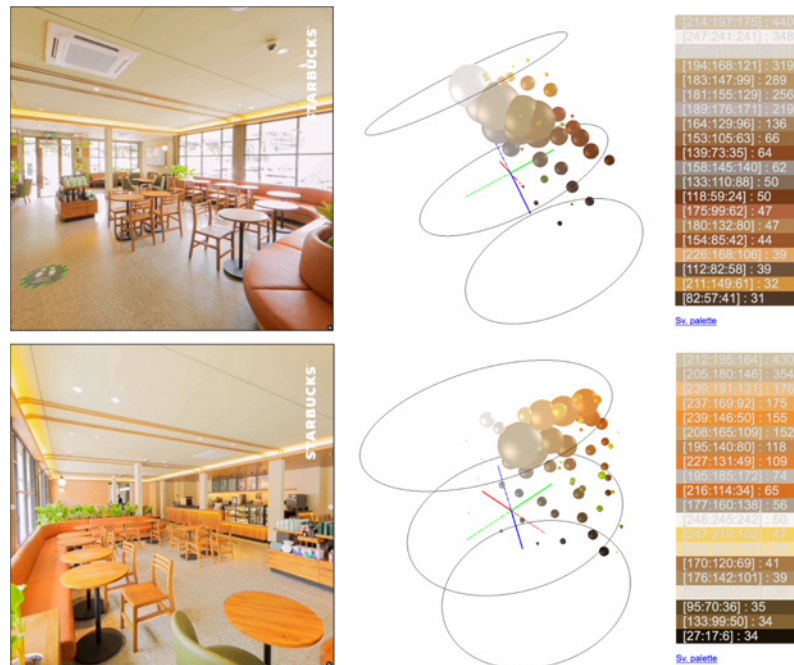


Figure 7. Analysis of colour proportion at Starbucks Sudirman, Bogor (Base image on the left took from the Instagram official account of Starbucks Indonesia)

The combination of colour palettes that express the summer experience can be seen at one of the Starbucks outlets in Jalan Sudirman, Bogor (Figure 7). Based on the analysis of the colour proportions carried out in these interior settings, we can see

the harmonisation of bright colours in the main areas of the room, either on the floor, wall, or ceiling. The polychromatic colours of brown, yellow, and white combined with other neutral colours like grey and white create a bright space experience. The achromatic circle diagram shows the position of some of the colours above the section of the XY plane. The position demonstrates the use of colours with high saturation to bring out the warmth experience of summer.

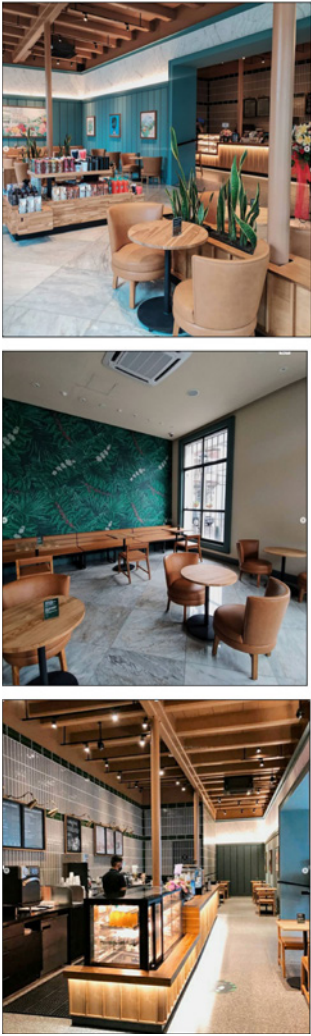
Expressive space 3: Nitro

Starbucks introduced nitro as an expression of winter through the use of analogue green colour and several complementary colours such as coral, brick red, and purple (Figure 8a). Nitro green in this palette is used as one of the dominant colours in their products. When viewed on a chromical circle diagram, the high saturation of the dominant colour highlights the importance of that colour among the other two colours (Figure 8b). The composition of contrasting the red, coral, and purple-coloured bricks expresses the joy and coolness of the nitro experience.



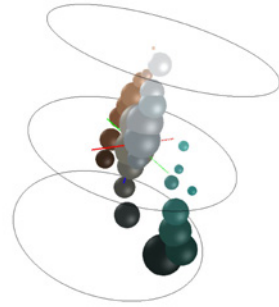
The Starbucks outlet in Kota Lama Semarang shows how the nitro expression is implemented in the interior setting by using some colour combinations, which is a complementary saturation of brown with green and grey (Figure 9). Most of the HSL analysis in such interior settings shows a balanced saturation value between brown and green (130–160) with a relatively low degree of lightness to present a cool and calm atmosphere. Brown colour saturation formed the horizontal plane of the ceiling and object's surface that dominates the space. As a neutralising colour, the grey colour is applied to the floor area. In contrast, with a high saturation level, the green colour is used for the wall's vertical plane that separates the two horizontal planes. The colour composition complements each other. The brown saturation of the furniture material shows the colour harmony between the furniture, with the green walls and grey floors highlighting different colours, such as coral, red, and purple bricks, which are also presented in the products.

Figure 8. Starbucks' colour palette for nitro (Image by Starbucks Coffee Company)



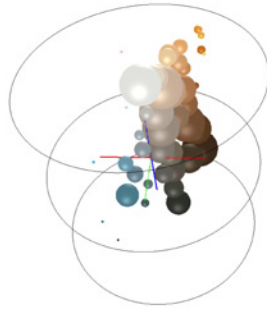
[156:126:104] : 202
[195:165:141] : 199
[209:194:189] : 199
[84:55:38] : 178
[17:14:9] : 168
[110:71:52] : 155
[182:176:172] : 150
[132:95:73] : 132
[183:147:119] : 132
[142:163:168] : 106
[40:81:87] : 104
[172:154:140] : 103
[26:61:68] : 90
[52:67:62] : 89
[166:139:204] : 67
[66:106:111] : 78
[22:38:39] : 67
[184:125:89] : 66

[Sv_palette](#)



[111:107:94] : 284
[149:144:134] : 277
[6:18:16] : 261
[126:137:143] : 204
[152:159:163] : 202
[8:43:37] : 159
[18:63:57] : 155
[89:88:80] : 128
[165:120:87] : 120
[29:35:35] : 115
[145:100:67] : 115
[189:169:161] : 106
[82:47:27] : 106
[29:90:86] : 103
[121:73:45] : 90
[43:23:11] : 88
[144:117:101] : 83
[58:58:54] : 82
[102:113:118] : 69

[Sv_palette](#)



[47:28:10] : 246
[111:70:39] : 219
[213:165:158] : 218
[157:142:127] : 175
[64:47:17] : 166
[199:161:128] : 156
[59:44:27] : 149
[189:179:153] : 142
[127:118:109] : 118
[175:116:70] : 108
[109:98:83] : 105
[145:91:51] : 101
[77:71:59] : 101
[32:35:28] : 99
[146:110:80] : 96
[190:140:99] : 66
[56:57:47] : 65
[67:122:141] : 57

[Sv_palette](#)

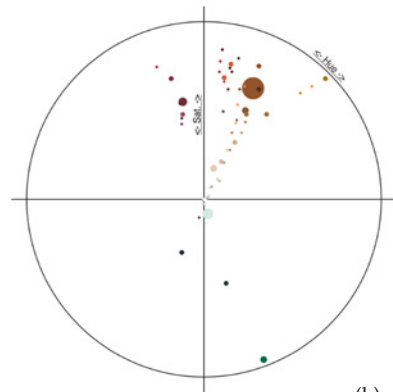
Figure 9. Analysis of colour proportion at Starbucks Old City, Semarang (Base image on the left took from the Instagram official account of Starbucks Indonesia)

Figure 10. Starbucks' colour pallette for autumn (Image by Starbucks Coffee Company)

SPRING
SUMMER
NITRO
FALL



(a)



(b)

[149:85:43] : 539
[211:233:227] : 106
[110:46:59] : 82
[0:106:69] : 53
[135:90:57] : 48
[232:201:187] : 46
[225:78:44] : 36
[31:41:48] : 35
[152:72:23] : 34
[152:115:58] : 34
[130:35:59] : 30
[162:112:71] : 26
[27:57:49] : 24
[158:118:0] : 23
[218:87:61] : 21
[219:187:164] : 20
[211:168:130] : 20
[80:48:22] : 20
[169:82:102] : 19
[199:198:191] : 16

Expressive space 4: Autumn

The autumn expression is presented in almost the same composition as the spring expression. It can be identified through analogue colour combinations (Figure 10). The colours used are green and brown with varying saturation levels (60 to 130 degrees). HSL analysis shows the position of most colours at low brightness levels. This analogue colour combination has a role like spring in bringing a calm atmosphere with fewer contrasting colours. Several applications of white and black were used to create a level of colour balance. This colour combination is generally applied to many Starbucks outlets in Indonesia.

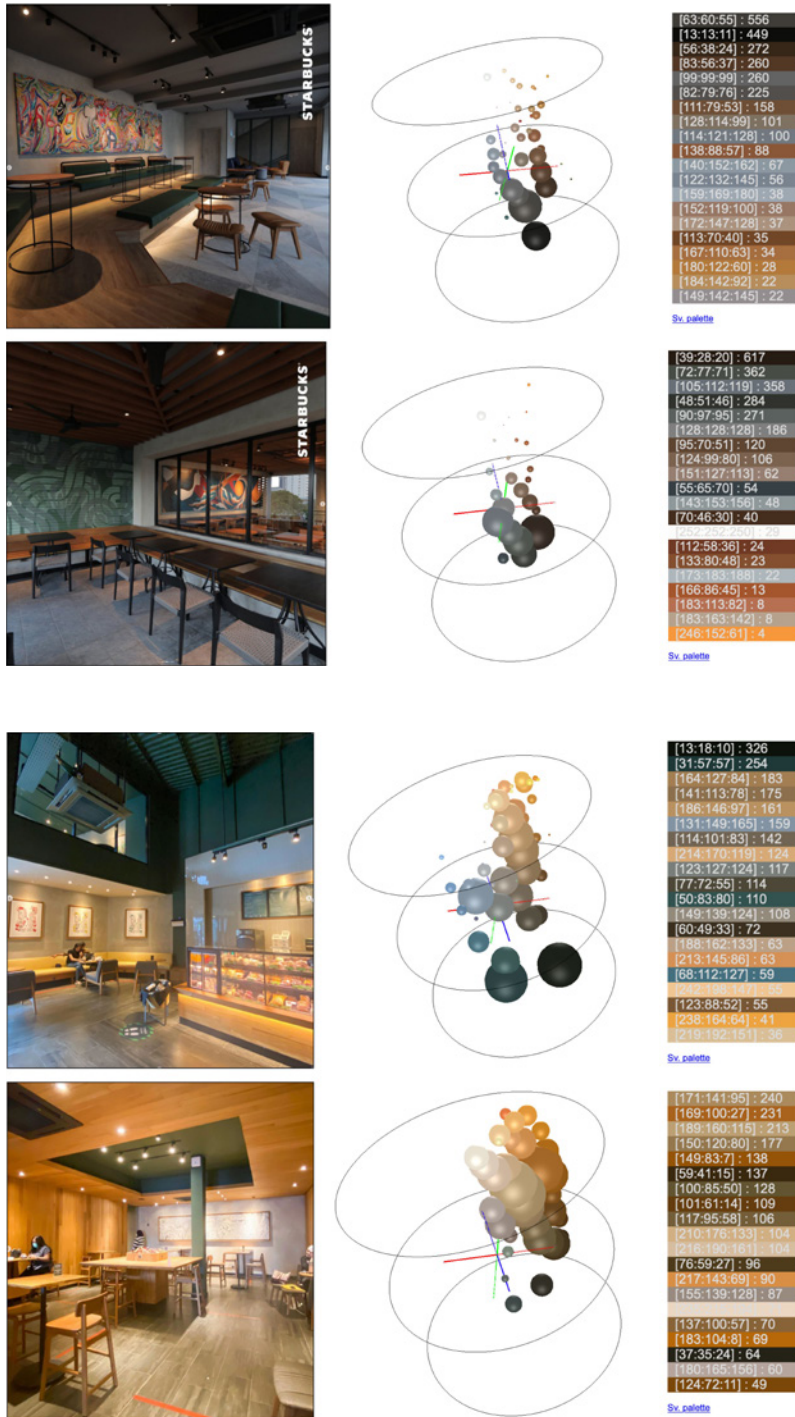


Figure 11. Analysis of colour proportion at Starbucks Tanah Abang, Jakarta
(Base image on the left took from the Instagram official account of Starbucks Indonesia)

Figure 12. Analysis of colour proportion at Starbucks Setiabudi, Semarang
(Base image on the left took from the Instagram official account of Starbucks Indonesia)

Starbucks outlets located in Tanah Abang, Jakarta (Figure 11) and Setiabudi, Semarang (Figure 12) are two of the many outlets that present the autumn expression. The HSL analysis of colour proportions shows that the level of colour saturation and average brightness used is relatively low (100). The brown colour's saturation is presented by the type of wood and leather material used for the interior. The wood material used for the ceiling and covering certain parts of the walls gives a warm feeling to the space. The brown colour is analogous to green with almost equal levels of saturation. The application of grey to form the surface of the floor area neutralises the overall colour combination.

Visual tectonic of the colour-based expressive space

The study outlines the role and involvement of essential visual elements such as colour in creating space by influencing proportions, simulating size, length, and depth, directing attention, and emphasising particular meaning and functions. In this study, Starbucks demonstrates the importance of colour as part of a product's visual identity, which can speak visually to express good interaction with the observer (Simmons, 2012). For Starbucks, the colour becomes one of the essential aspects that influence emotions in presenting a feeling of intimacy in the Starbucks space, such as feeling at home (Warakanyaka et al., 2017)

The study of colour palettes and their application to several Starbucks interior space settings shows some rules and basic thinking of its combination. First, Starbucks uses a secondary colour as its main identity, green, with several variations of different levels of saturation (shade and tint). Starbucks does not use over-saturated colours, yet saturated colours are only applied to the points of interest area, which uses intentionally sharpened colours to highlight an object or a spatial element. Secondly, Starbucks tends to use both analogue and complementary colours in developing colour combinations as a form of expression. The psychological use of analogue colours aims to avoid eye fatigue (Pridmore, 2011). Tectonically, its implementation in product design can present colour harmony while showing space continuity in interior settings. The use of several other non-dominant contrasting colours complements the harmonious colours.

The implementation of colour combinations between Starbucks' product and interior settings is different from each other based on our experiential points of view in seeing colour as a visual forming element. The colour application to a product demonstrates the appeal of colour from a broad perspective, obtained by our position as the subject outside the object. The colour composition applied to the product consists of one dominant colour complemented by another analogue and complementary colours. The dominant colour in the product serves as a background colour. Meanwhile, understanding colour in an interior setting is to position ourselves as a subject *within* the architectural object through the various colour combinations applied to the interior space. The colour composition applied

to the interior space is dominated by analogue colours. The contrasting colours are presented mainly by the colours of the product that are part of the interior space.

The different perspectives on how we read colour in product designs and interior settings define the character of the visual tectonic of colour in creating interior space. On one side, the form of spatial experience in product design is generally static. Combining colours on certain media can be slightly dynamic for a limited period of time. While on the other hand, the experience of interior spaces is much more dynamic. Understanding the interior dynamic enables constant navigation of the space by its user. As Merleau-Ponty (2010) points out, a person's experience of moving in an area is bound up in their immediate experience and perception of that space in a series of non-static moments.

Conclusion

In summary, the potential of colour as an instrument for visualising spatial tectonics can be determined by reading the combination of their Hue, Saturation, and Lightness. Such reading demonstrates the spatial order and production of surfaces driven by colour system. One thing we need to keep in our mind when applying colour as entity that forms the space is its relation to other aspects, especially natural light, which would determine the colour's brightness level and has the potential to change the presence of space dynamically.

The above situation also reminds us that the visual tectonics of colour is dynamic. The dynamics change of viewpoints in space must be considered when combining, blending, and eliminating colour in order to construct the interior form. Space navigation performed in a series of non-static moments on various frames may influence the visual tectonic mechanisms applied to any interior setting. This study is currently limited to one specific brand, and therefore an exploration of its colour system may be rather limited. The analysis results of colour proportions in various Starbucks interior settings show that Starbucks's specific aspects of polychromic architectural form may also differ when translated to another brand of products. The different products might require different characteristics of expression. Nevertheless, this paper has outlined the logics of design methodologies for assessing and combining colour to reach a particular expression of form as part of an alternative design practice based on visual elements.

References

- Alexander, C. (2002). *Notes on the synthesis of form*. Harvard University Press.
- Atmodiwirjo, P., & Yatmo, Y. A. (2015, Nov. 18). *Architecture as machine; Towards an architectural system for human well-being*. Le Corbusier, 50 Years Later Congress, Polytechnic University of Valencia, Valencia, Spain. <https://doi.org/10.4995/LC2015.2015.679>
- Caivano, J. L. (2006). Research on color in architecture and environmental design: Brief history, current developments, and possible future. *Color Research & Application*, 31(4), 350–363. <https://doi.org/10.1002/col.20224>
- de Heer, J. (2009). *The architectonic colour: Polychromy in the purist architecture of Le Corbusier*. 010 Publishers.

- Dernie, D. J. (2020). Notes on the spatiality of colour. In L. Crespi (Ed.), *Cultural, theoretical, and innovative approaches to contemporary interior design* (pp. 85–103). IGI Global.
- Frampton, K., & Cava, J. (1995). *Studies in tectonic culture: The poetics of construction in nineteenth and twentieth century architecture*. the MIT Press.
- Gage, J. (1982). Colour at The Bauhaus. *AA Files*, 2, 50–54. <http://www.jstor.org/stable/29543325>
- Gage, J. (1993). *Color and culture: Practice and meaning from antiquity to abstraction*. University of California Press.
- Harahap, M. M. Y. (2021). Articulating tectonic: From iteration to nexus. *ARSNET*, 1(1), 40–55. <https://doi.org/10.7454/arsnet.v1i1.5>
- Kane, C. L. (2015). Broken colour in a modern world: Chromatic failures in purist art and architecture. *Journal of the International Colour Association*, 14, 1–13.
- Katoh, M. (2000). On Le Corbusier's architectural polychromy. *Journal of Architecture and Planning (Transactions of AIJ)*, 65(536), 275–279. https://doi.org/10.3130/aija.65.275_3
- Klinkhammer, B. (1999). *The spatial use of color in early modernism*. In G. Forbes & M. Malecha (Eds.), *Proceedings of the 87th ACSA annual meeting: Legacy + aspirations* (pp. 222–225). Association of Collegiate Schools of Architecture. <https://www.acsa-arch.org/proceedings/Annual%20Meeting%20Proceedings/ACSA.AM.87/ACSA.AM.87.49.pdf>
- Le Corbusier. (1986). *Towards a new architecture*. Dover Publications.
- Linton, H. (1999). *Color in architecture: Design methods for buildings, interiors, and urban spaces*. McGraw-Hill.
- Long, J. (2014). What is visual ergonomics? *Work*, 47(3), 287–289. <https://doi.org/10.3233/WOR-141823>
- Merleau-Ponty, M. (2010). *Phenomenology of perception* (C. Smith, Trans.). Routledge. (Original work published 1945)
- Murata, J. (2004). *The multi-dimensionality of colors*. http://www.cuhk.edu.hk/rih/phs/events/200405_PEACE/papers/JunichiMURATA.pdf
- Ozenfant, A., & le Corbusier. (1918). *Après le cubisme*. Éditions des Commentaires.
- Pedrosa, I. (2009). *Da cor à cor inexistente*. Senac.
- Pridmore, R. W. (2011). Complementary colors theory of color vision: Physiology, color mixture, color constancy and color perception. *Color Research & Application*, 36(6), 394–412. <https://doi.org/10.1002/col.20611>
- Rüegg, A. (Ed.). (2015). *Polychromie architecturale: Le Corbusiers farbenklaviaturen von 1931 und 1959* (3rd ed.). Birkhäuser.
- Rüegg, A. (2021). *Le Corbusier and color*. (Museum für Gestaltung Zürich, Ed.). Museum für Gestaltung Zürich.
- Serra, J., Llopis, J., Torres, A., & Giménez, M. (2016). Color combination criteria in Le Corbusier's Purist architecture based on Salubra claviers from 1931. *Color Research & Application*, 41(1), 85–100. <https://doi.org/10.1002/col.21940>
- Simmons, J. (2012). *The Starbucks Story: How the brand changed the world*. Marshall Cavendish Business.
- Starbucks Coffee Company. (2022). *Starbucks Creative Expression*. <https://creative.starbucks.com/>
- Warakanyaka, A. A. A. S., Zhara, L. G., & Atmodiwirjo, P. (2017). *Feeling at home in Starbucks: Revealing transient urban interior*. UIA 2017 Seoul Architects Congress, Seoul, South Korea.

