Colors can be colored on everything

by Sinyoung Kim

INDEX

Introduction

Even before studying at Piet Zwart, I was an artist who aims to optimize the aesthetic value on my artworks. I preferred images that arouse a positive mood to the audience and I always tried to include such features in my works. As Henri Matisse once said 'I wanted my art to have the effect of a good armchair upon a tired businessman' (Hughes,1980). I wanted to depict an ideal world through my work which contributed to a more beautiful world. I followed the public's ideal of beauty which can be friendly regardless of audience. Giving a relaxed moment with friendliness to the audience was one of my strongest motivations. At the same time visually, I wanted to have a distinctive visual identity which brought an appealing freshness to the audience and I found the freshness at the colors.

My use of colors might seem unusual or abnormal compared to the reality. Since my youth, I have developed my interests and basic knowledge of art. I trained my drawing skill by depicting real objects on canvas. At that time, the accuracy with which I could convey reality with my drawing skill was the main standard which I followed. It was against this standard that I had to label my color usage 'abnormal' or 'unusual' as it was different from what we see in reality. However, I realized that my skill is not different from what other people have and it had no distinct characteristic. I became tired of depicting a real world; moreover, there was no freshness in what I did. While feeling the thirst for new stimuli, I got inspiration from the colors of Fauvism paintings. A Korean art critic Moon-Jung Lee shows Matisse in her recent book *Between Revulsion and Captivation* (2018) as an example of one of the various attempts in the 20th century of finding a new style of art which is resisted the provincial traditions. Matisse pioneered a revolutionary use of color and form, refusing to accept that color must reflect the real world. Even though his paintings described as wild beasts – "Fauves" because of their radical daring and undulated colors, their simplified devices, and their impulsiveness, it reflected the convinced spirit of the artists who preferred exotic and disparate concepts and craved to be the leaders of the age. Which, obviously, led me to be thrilled about his paintings, as I also want such a spirt about colors to be in my artwork. I was able to realize this desire through my work *Eden* (2014).

Eden is a three-minute animated music video based on the story of Adam and Eve. I visualized the fantastic garden of Eden with bold-designed images and vivid colors to convey the mood of the music. Various colors are changed along with the beat of the music, implying that Adam and Eve represents diversity of mankind until today. I used colors with delicate intentions to deliver the mood of music and story, but also to develop distinctive visual style. Rather than covering a dense forest with the greenness of leaves, I colored it with artificial colors which are rarely seen in nature. The irregular color scheme was rebellious, but it achieved the uniqueness which I was looking for. Since then, I have developed my own visual language by applying the uniqueness on my works.

One of scenes from *Eden* (2015)

When I worked for my client in 2018, I had a chance to think about the color of my works once again. The client was Lotte World Mall which is the tallest mall in Seoul. I was asked to make four different illustrations representing each season for their marketing campaign. All the concept and the plot were prepared and my job was to visualize them into an artwork. With the given concept, I had to create different characters, objects, and even a whole new space. This project was targeted to the general public visiting the mall and the purpose of it was to present positive cultural experiences to the public by delivering the ideal images of each season. While proceeding with the project, the client firmly requested to use specific color tones for each season. For example, spring should be with pastel colors, summer should be with blue which feels cool, Autumn should be with toned-down gradated color, to give depth, and so on. As the project should embrace various types of audience, the client stuck to their standard on color which uses stable and cliched colors for each season, not allowing the use of unique colors, which is one of my distinctive styles. Their passive and inflexible manner caused conflicts with my artistic preference on colors. I was dissatisfied with all the results since it did not have the colors that I wanted, and It would have been far better if I had demonstrated my own color style. Through a deeper reflection, I have deeply considered about how valuable colors are to me and in what way I should persuade future clients to use color schemes as I suggest.

Research Objective

One of my strengths, or sometimes disadvantage, was using the colors based on my intuition. Even though color is one of the crucial elements which presents characteristics of my visuals, I always used colors based on my intuitional preference, but lacked knowledge of any related studies of color. Through the research catalogued in this thesis, I wanted to find out substantiated reasons for my usage of color. Moreover, I wanted to develop my own visual language which will be attractive for the audience.

Research Methodology

This is my first time doing such research for an artwork. Thus, I tried to focus on developing the concept or idea step by step based on the research results. The research is designed as field research based on sets of semi-structured interviews. All the interviewees are randomly selected without specific criterium as this is not intended as a scientific research. As an Artistic Field Research, the samples might have some limitations but still would support me by sharing their views, providing a method which allowed me to listen without any preconceptions or prejudices and also allowed me, by analyzing the answers, to draw a conclusion. The research proceeded in different rounds of interviews. After each round, all the answers are analyzed and categorized based on their similarities, which would be the main inspirations for the next interview questions.

Chapter 1. How images are perceived and interpreted?

In the early phase of my research, the main question was 'Can we get rid of stereotypical interpretations of color?' Probably, it was because I wanted to criticize the conservative stereotypical use of colors, especially in the commercial field which I once was involved in. Kees van Dongen, one of the leaders of Fauvism, remarked, "because the impressionists held certain principles, For us, there was nothing like that; we merely thought their colors were a bit dull." (Hughes,1980, p.82) In his words, 'certain principles' do coincide with what I call 'stereotypical use of colors', I also admitted that it is a bit dull.

Moreover, I assumed that we are somehow controlled by the stereotypical meaning without enough supportive evidence or reason. When I searched 'Color's meaning' on the internet, it was not difficult to find a vast amount of information and studies claiming that certain colors arouse particular emotions or moods. In addition, there is the study claiming to be able to use light in the form of color to balance "energy" lacking from a person's body, whether it be on physical, emotional, spiritual, or mental levels – this is called Color therapy. In Faber Birren's book *Color Psychology And Color Therapy; A Factual Study Of The Influence of Color On Human Life* (1950), Birren described the theory as 'The study of color, unfortunately, does not always lend itself to facts and proofs' (p.138) and '[t]here is little evidence so far to substantiate these claims' (p.140). Surprisingly, even though the early scientist's perspectives on the ideas dealt with in the book, Birren clearly said that 'Many notions about the effect of color on the human mind are mere absurdities.' (p.172)

Nonetheless, these kinds of concepts on color are being used as a powerful marketing strategy in the commercial field. When I worked for the mall which I mentioned, I was asked to use a specific color 'Ultra Violet' since it is the color selected as *The color of 2018* nominated by Pantone, purporting the color offers mindfulness practices in today's over-stimulated world. Whether the idea is valid or not, the demand to use the color didn't make sense to me, since I believe that color should have an obvious reason to represent a certain concept. I felt that this is a very insular view considering the color by only the created meanings rather than the image itself, which hinders the artist's desired message to be fully understood by the audience. As John Berger argued, "The way we see things is affected by what we know or what we believe." (1972, p.8). This experience triggered me to explore the following issue: what will happen after we understand that we have a stereotypical image of color? Then can we accept daringness coming from dissonant images more easily?

Ch 1.1 The First Experiment : *What is your favorite color?*

Through the first experiment, I wanted to find out how the color is perceived and interpreted in our daily lives. I prepared a question-list regarding colors, such as the favorite and least favorite colors of the participants in the tests. Through the questions, I wanted to see what people would say about those colors in their daily lives and the emotions that particular colors evoke. In addition, I brought some edited images to check people's reaction to some questions.

The first experiment also comprised multiple image sets. I chose apple (fig1) and toilet paper (fig2) to see how people would react on "consuming" objects with unfamiliar colors, and Van Gogh's artwork(fig3) to see how people would feel if the color is different from what they already know. After several interviews, I added and excluded images to take a further step on my research. In total, for the first set of experiments, I interviewed 41 people who are mostly in their 20s and 30s and most of them are students. As I have mentioned, this is not intended as a 'scientific research' but rather an 'artistic research'. For me, it was more important to exchange opinions with more people than being selective in interviews by setting certain criteria.

Outcome 1

The color association is influenced by various matters; culture, generation, language, region and other influential factors. Everyone's favorite colors and reasons are so diverse and complicated. Many people seemed not to consider the meanings of colors than I had expected, and most of the people that I interviewed considered color as a tool to represent themselves. For example, when they thought about their favorite colors, they first came up with their wardrobe and talked about the colors of clothes they have. Of course, it also linked with color symbolism related to cultural norms, religion or general knowledge (such as, in some cultures Red is associated with the rich and green is the color in which the eye can rest.) The fixed perception of the color is held in our brains deeply. I realized that it would be too complicated to get rid of the whole image of the color and see it with a new perspective.

In addition, the emotions people felt toward a certain color were contradictory. Certain color-ideas served a very wide range of aesthetic and symbolic purpose; and the same colors or combinations of colors can be shown to have held quite antithetical connotations in different periods and cultures and even at the same time and in the same place (Gage,1999, p.34). Apparently, contradictory reactions on a certain color were observed. For example, some people felt scared and threatened by van Gogh's red image because red is often associated with blood and red is often considered as a symbol of revolution. On the other hand, some people felt warm by seeing the same picture because red is also a warm color and reminds them of the sunset.

Figure 1

Figure 2

Figure 3

12

Outcome 2 : One image, two split opinions

What is the most notable about the first experiment was the reactions to the 3 apples image (fig1). Interviewees were asked to choose the first piece to eat among the 3 apples. As I have assumed, most people picked the yellow one because it looked the most natural and they felt the most comfortable on it. However, what triggered my curiosity was people's reactions on the blue and the pink apples. They were repulsed by the blue apple and the pink apple, due to their unconventional mood, but it also stimulated their curiosity. To sum up, all the responses to the blue and the pink apples, it looks most different from what they are familiar with, but because of that, some people felt attracted to these apples. It was an interesting discovery which two split opinions, feeling discomfort and attraction, coexisted in one image.
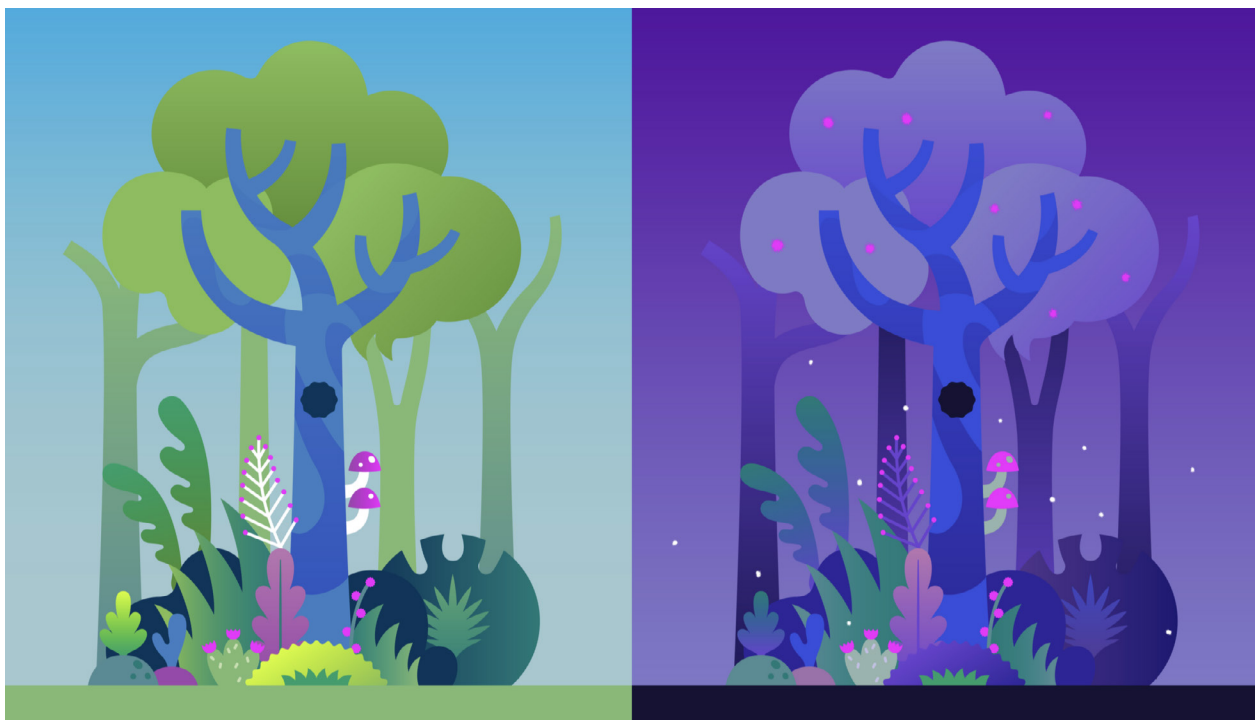

Figure 4

To test it more, I added a pair of forest images with different colors (fig4) to the interview experiment. I prepared green-colored image representing the natural environment and purple colored image representing an artificial environment and asked them in which environment they would want to stay. There are 2 main purposes of this question. As I checked in colored apple image, I wanted to check how people would feel different emotions when the color is changed from what they are used to. During the beginning of the experiment, I found that people rather felt odd or interested in the images when the colors of nature are changed to unusual or artificial colors which are rarely seen in nature. In addition, if the apple is an object we can eat, this forest is an environment in which we can stay. It was intended to see how people would react to different features.

Outcome 3

Although most of the people chose the yellow apple which arouses a stable mood, over 70 % of people picked the purple one which interviewees knew to be unusual. They were more curious and found it more intriguing. Whereas the green forest was described as it brings comfort and relaxation but it is too normal and boring to explore. The purple one was depicted as a place where people become curious. Obviously, it looks unconventional and its artificial visual provokes unfamiliarity, and yet people feel attracted to it. Some said that these images could be seen as day and night, and some people picked the purple one because it is dark. At least, I found out that rather than the bright one, the dark environment evokes more curious or odd feelings.

My interviewees who were trying to tell their emotions frankly toward the edited images seemed to feel weird but amazed at the power of colors. It was actually their first time to deeply consider colors to be such strong influencer on the mood of the images. I found it interesting that it is actually possible to produce visuals evoking discomfort feeling while being attractive at the same time with unfamiliarity by using colors. Moon-Jung Lee, *in Between Revulsion and Captivation* claims that "Unfamiliarity causes discomfort. But it is this discomforted unfamiliarity which makes cliched art and the world to have more room for new creativity." (2018, p.185)
By changing the natural color of the apple to the artificial one, people felt discomfort but it led them to try one out if possible. Through altering colors, the seemingly boring environment turned into the attractive place triggering people's curiosity.

Through the first experiment, I found out that unfamiliarity can be turned into attractiveness. I wanted to explore more about this through the next experiment. As a preparation for the second experiment, I analyzed why people felt unfamiliarity on the blue apple image and the purple forest image and how the unfamiliarity further processed into attractiveness. The following theory substantiates the process.

Gestalt psychology

The central principle of gestalt psychology is that the mind forms a global whole with self-organizing tendencies. In the study of perception, Gestalt psychologists stipulate that perceptions are the products of complex interactions among various stimuli. Gestalt psychologists sought to understand the organization of cognitive processes (Carlson and Heth, 2010) "The whole is something else than the sum of its parts". This is the original famous phrase attributed to Gestalt psychologist Kurt Koffka. When we see something, we tend to see a whole form rather than each part separately. Our eyes are not like a camera or a window. We do not see the world objectively. Rather, what we see is interpreted and given meaning by the observer, based on memories, expectations, beliefs, values, fears, assumptions, emotional states, and more (Sabar, 2013). To think about the result of the first experiment, if we see only the color apart from the objects, the colors

of the apple (blue) and the color of forest (purple) do not cause enough stimulus to arouse a certain emotion and they are too weak to trigger our curiosity. However, the combination of the blue & apple or purple & forest and the interactions of the color and object lead us to imagine beyond the surface of visible things.

Ch 1.2 The Second Experiment : *Which one do you feel attracted the most?*

Basically, the images I prepared for the experiment will be the combination of colors and objects. The combination might be unfamiliar, but I want to focused on what initiates the unfamiliarity turning into attractiveness. In the second experiment, based on the unusual colors, as I found out that people easily feel repulsed by un-natural colors, I combined them with different objects to figure out how the combination between external visual and the distinctive feature of objects would be interpreted, and moreover, what story could be imagined by the audience. I believed that this experiment will be one of the phases helping me to find the leverage point which the unfamiliarity turns into attractiveness.

According to different using features of the objects, the emotions are influenced differently to the colors. In the first experiment, The apple is a consuming object and the forest is a place where people can stay. On the apple image, most of the people chose the yellow apple since it looks the most natural and people linked it to a normal consuming object which they easily see in their daily lives and consider safe to consume. On the other hands, on the forest image, most of people wanted to stay in the purple forest with the opposite reason: seemed unusual. Its uncommonness brought new feelings to them and it caused their curiosities. I assumed that their different features of the object gave a big contrast to people's choices.

Following Gestalt theory, I came up with the primary and secondary layers of the chosen objects. To be specific, the primary layer of an apple would be its appearance with different colors and secondary layer would be the tasting or consuming the apple. As a development of this, I came up with VCR (fig7), which the primary layer would be the rectangularly shaped appearance and the secondary layer would be the video that it contains. Likewise, the drink (fig5) was chosen. For hands (fig8), I wanted to change the second layer to be associated with "touch" feeling and the poodle (fig6) for feelings of empathy. Basically, the primary layer is colors and the secondary layer is features of objects.

Interview contents & Outcomes

Drink

Figure 5

- 5 different colored drinks were shown and the participants were asked: 'which one would you want to drink?'.

The majority of people were reluctant to taste them as it is consumed and can cause harm to their health. Even, people seemed not attracted to all kinds of colored drinks since they see the image based on their memories, for example, they reminded of dish washer detergent which is not edible. This link hindered people to feel attracted to the images. In addition, they tended to choose the least chemical looking ones, for example, people who picked the yellow related it to a glass of lemonade. It was also because they made choices based on their memories toward a glass of lemonade, thus, it was the most familiar and the safest choice.

Poodles

Figure 6

16

- 5 different colored poodles were shown and the participants were asked: 'Which dog looks the happiest?' and 'Which dog looks the saddest?'

Reactions to the poodle image were more positive in comparison to the drinks. It might be because poodle's secondary layer is not consuming, which can affect one's health. However, interestingly, people thought colored poodles are weird but attractive. I assumed that there are 2 main reasons. Even though the colors on it looks unfamiliar, people considered the distinctive feature of the object more. One interviewee (Joke van Driel, 20, studying Graphic Design) said "Dogs are cute, they are always nice to see. It is just a bit weird to see yellow, pink or other colored dogs but it is funny." She felt strange toward the artificial colored dogs, but she interpreted the image based on her personal emotional state toward dogs. In addition, when the combination of the color and object is distinct which people normally have not experienced before, it can be turned into attractiveness. Another interviewee (Angela Grigolato, 23, studying photography) said: "I have never seen such colored dogs. If I see the dogs on the street, I would stop to watch them. Because they look nice." She felt attracted to the image because she had never seen it before. The objects in the image which are hardly seen or never exists seemed to be the main trigger.

VCR

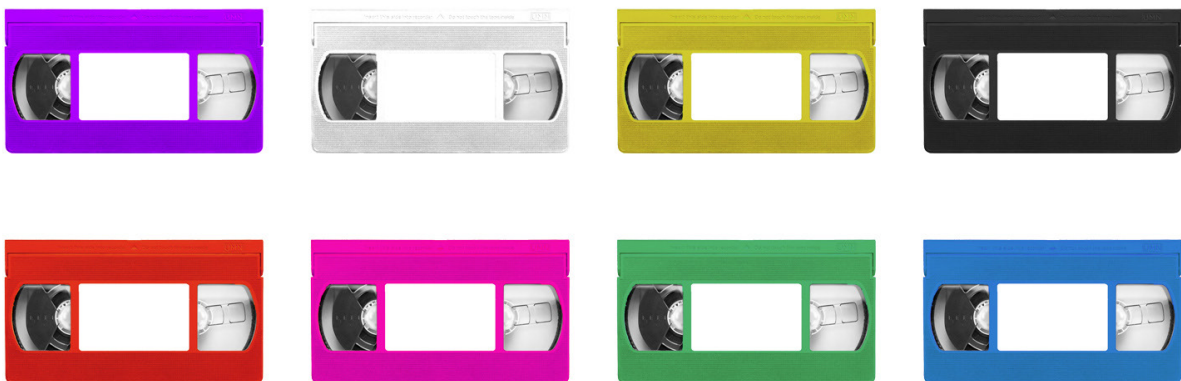
Figure 7

- 8 different colored VCR were shown and the participants were asked: 'Which one would you want to watch?' and 'What genre would it be?'.

VCR images are also with less common colors, but it is a manufactured product so people assume that it is sold somewhere, and this makes them less unfamiliar. Also, the secondary layer of video does not affect their choices. The genre that they stated was what they like, not considering the colors. However, I found out that bright and vivid color stand out among other colors, and this caused people to choose them. My initial idea on VCR was to find out the appropriate range to find out the triggering layer. The result shows that people rather are not triggered by the genre of movies, which can be seen through another object.

Poodles

Figure 6

- 5 different colored hands were shown and the participants were asked 'Which one would you want to shake hands?'.

From the reactions on hands images, what I found unexpected is that some people linked the different colored hands to a diverse race of people. Thus, the idea of choosing a hand wanting to touch is, otherwise, left room for interpretation of discrimination (especially racial discrimination). In this case, the story can be interpolated from the image which could be very complex, associated with social issues, which I did not originally intend.

Interviewees' interpretation and perception toward on a new image were based far more on memories, expectations, values, assumptions, emotional states rather than the specific features of objects such as consuming, touching, feelings of empathy. When the combination is new which people have not seen or experienced in their daily lives and cannot be linked with pre-existed objects, people find its uncommonness and this led them to feel attracted to the image. This might explain why people feel attracted and have more curiosities on the blue apple, purple forest and colored poodle images even though the image itself seemed unfamiliar.

Chapter 2. How colors are seen?

While conducting 2 sets of the experiments, I mostly focused on the people's perception coming from a single color. Somehow, I was able to see that some of my interviewees could not easily answer their thoughts on a single color. For example, when I asked about the color they dislike, one interviewee (Leslie Robbins, Course Coordinator) said 'Any color in combination with another color is going to be beautiful'. Not only her, but also a number of other interviewees mentioned that a single color matching with another color would bring a totally different mood. This led me to consider the color combination as the topic for the next experiment.

One day, while I was shopping, I was fascinated by various colored wallets displayed on a store shelf. I brought a favorite colored one without hesitation. However, when I saw the wallet again individually after purchase, it looked much less appealing compared to when it was displayed with other colored wallets. I realized that what caught my eyes was the beautiful harmony of wallets' colors rather than a single color and this was the reason why a single colored wallet I brought aroused different feelings to me. Josef Albers, an artist and an educator who devoted his life to studying colors, wrote that "In order to use color effectively it is necessary to recognize that color deceives continually. My concern is the interaction of color; that is, seeing what happens between colors. We almost never see a single color unconnected and unrelated to other colors. Colors present themselves in continuous flux, constantly related to changing neighbors and changing conditions." (1970)

For Vasily Kandinsky, a founding father of abstract art, the color was one of crucial elements for his creative process to awake a higher consciousness. As can be seen from his painting style which is in true abstract form, he attempted to translate objective visual reality into his simplifying composition style in order to elicit emotional and spiritual responses, instead of as description of reality. He was investigating the power of color combinations and how they could affect perception and emotions. He believed color could influence a person's inner sensibility and awaken the sprite. *Color Study: Squares with Concentric Circles* (1913) is a study of interaction of different colors and shapes. Kandinsky explores many side-by-side combinations: Complementary (colors opposite each other on color wheel), Analogous (adjacent colors on the color wheel) and triad (colors spaced equally on the color wheel). With color ranging from cozy reds and yellows, to Icelandic blues and forest greens, he utilized the overlapping colored circles, and place them inside a square compartment. Through this study, Kandinsky tried to explore the impact of different colors on the viewer and the emotional response that these colors evoke.

Color Study: Squares with Concentric Circles, Vasily Kandinsky, 1913
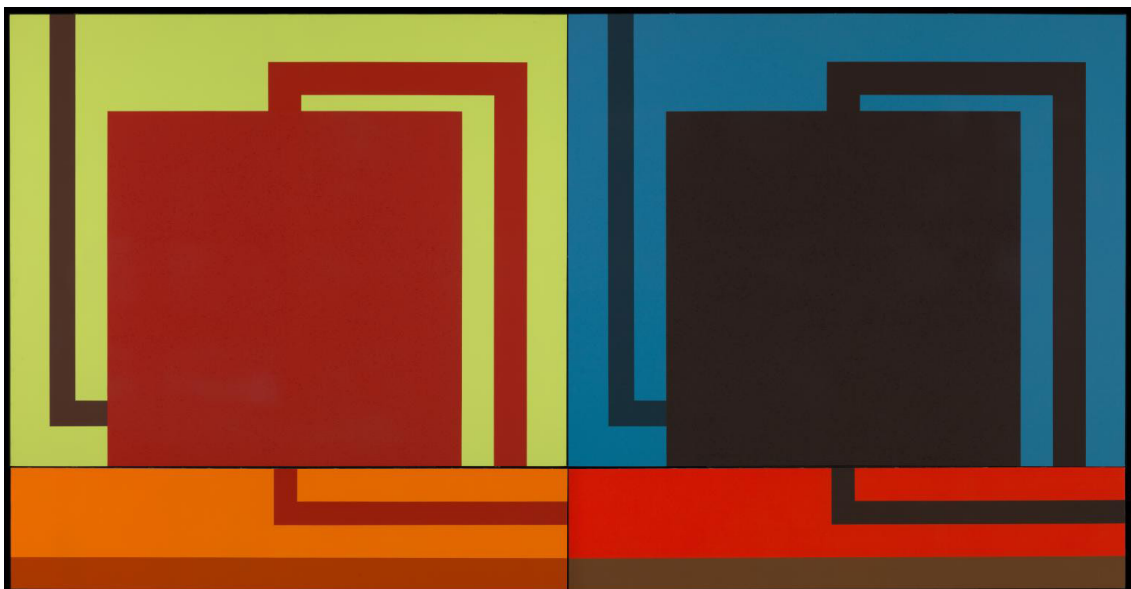
Rob and Jack, Peter Helley, 1990

In the twentieth century, the move away from representation, in abstraction and Minimalism, allowed color to become a central subject. For painters, color invariably became a cerebral pursuit, a way to understand how painting itself works on the eyes and the mind, but the results are often visceral, rather than puzzles of theory. Peter Halley, a New York based painter, identifies color not as a passive, decorative element but as a signifier of meaning. He normally uses bright, fluorescent Day-Glo acrylic paints seeming jarring or clashing deliberately, wanting to both attract people's gaze and cause people to look away. This is to convey his painting's meaning which is critical of the mechanization and commercialization of the modern world. He has employed a stark geometric vocabulary since the 1980s, varying only the configurations and color combinations with each subsequent painting. His painting *Rob and Jack* (1990) depicts an abstract composition of geometric lines and shapes divided at the centre into two symmetrical halves. Both right and left sides of configurations are equal but only the color combinations are different – red against a yellow, orange and red background on the left, black against a blue, red and brown background on the right. By varying the color combination, it represented side by side by the two separately colored 'cells'. Although the two sections of the painting remain disconnected, the conduits extending from and intersecting them suggest another means of connection to the mass of information channels in the technological maze of the modern urban environment beyond. (Johnston, 2014)

Both Kandinsky and Helley emphasized color as a tool to stimulate and elicit instinctive consciousness rather than to signify symbolic connotation. Through colors, Kandinsky wanted to deliver emotional and spiritual responses on metaphysical matters such as music and Helly wanted to deliver comparable intense stimuli. The method how they deal with colors has relevance with Affect theory.

Affect Theory

An affect is a non-conscious experience of intensity; it is a moment of unformed and unstructured potential (Shouse, 2005). It is more like a physical response to a certain moment which can be observed by others. Affect can be distinguished from feelings or emotions. Emotional domain is divided in to three levels of 'Feeling','Emotion' and 'Affect'. Shouse classified the three levels, based on the Deleuze and Guattari's study which states affect is not a personal feeling. Feelings are personal and biographical, emotions are social, and affects are pre-personal. To be specific, a feeling is a sensation that has been checked against previous experiences and labelled, an emotion is the projection/display of a feeling which can be either genuine and feigned depending on given circumstance of being alone or being in a group. Affect is the most abstract because it cannot be fully realized in language, and because affect is always prior to and/or outside of consciousness. Affect is the body's way of preparing itself for action in a given circumstance by

adding a quantitative dimension of intensity to the quality of experience." (Massumi, Parables 30) Affects are comprised of correlated sets of responses involving the facial muscles, the viscera, the respiratory system, the skeleton, autonomic blood flow changes, and vocalizations that act together to produce an analogue of the particular gradient or intensity of stimulation impinging on the organism" (Shouse quoted in Demos)

This is a graphic (fig 7) which illustrates the process of emotional domain focused on affect, schematized by Taeseong Lee in his study *A Clarification of the Emotion Concept in the Social Studies Education - Focusing on the 'Affect Theory'*. An intensity instantaneously refracts by a prism of experience through memories. If the intensity is noticed, it arouse a certain feeling. The feeling is transformed to certain emotions through a window of consciousness. Some of the emotions can be vague to realize in language. Emotions do not have clear boundaries, but it is more like a form of fractal. In other words, some emotions are overlapped and interacted. For example, someone feels angry or annoying on a certain circumstance, the emotions can be related to sadness, sympathy. Affect is a kind of source of interacting emotions among individuals and internal emotions. (Lee,2017)
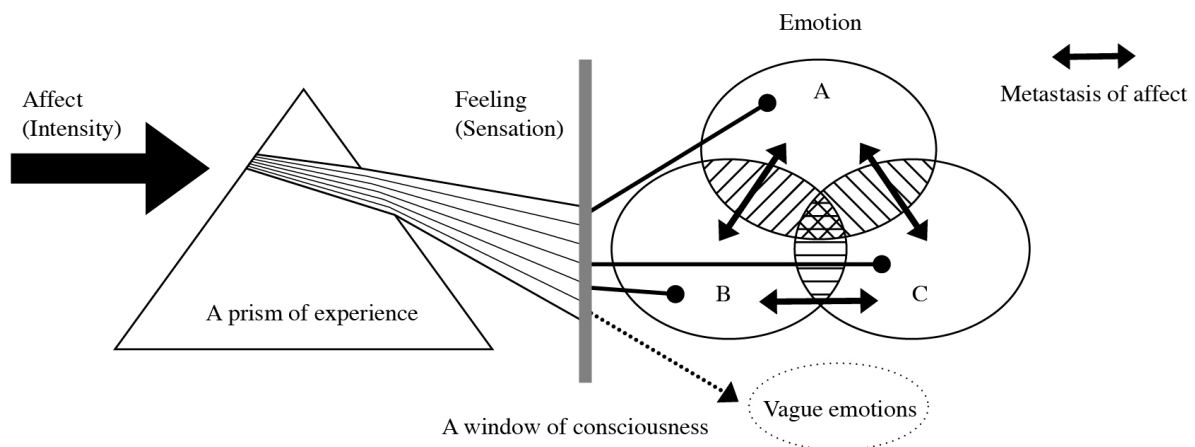

Figure 7

Affect is the most instinctive and unconscious response since it does not pass through conscious comprehension. In the sense of affect, every reaction to a color does not have to have a symbolic connection rather perception of a color definitely rely on our intuitions, sometime it is impulsive. The affective image does not signify, in the sense that it does not make reference to something outside itself and It is not associated with a particular thing. Based on affect theory, I would like to elicit people's unconscious response on colors rather logical, systematic and theoretical interpretations on colors.

Ch 2.1 The Third Experiment: *Combinations of color relationship*

The main objective for the experiment is to find out how people would react to different color combinations and moreover, which type of color combination could trigger people's curiosity the most. It can be translated to which color combination would be the most attractive.

Color combination

I have chosen several objects and designated one main color for each object. These colors are later combined with its complementary color, analogue color and monochromatic (the color which has different shade), based on Kandinsky's method he practiced in his color study.

Fictional mood

To be in-line with the result of the 2nd experiment, when I choose the object for the 3rd experiment, I tried to use ones from nature. I realized that when the nature object combined with artificial colors, it brings fictional mood on the image and it seemed like interviewees are opened and less offensive toward that kind of mood. In other words, they had less problem describing their thoughts. For example, among reactions on the image of purple forest (fig4), there were many that people liked the fantasy mood arousing from the image, and it led them to think about adventurous experiences which rarely happen in reality. I thought implying the fictional feature would be a great method to stimulate the audience to find attractiveness from the unfamiliarity. In a fiction, we can only rely on our imagination to create narrative elements, which does not require coherency or historical evidence. Mark Newton, an editor of fiction novel publisher Solaris, points out that "People like to explore greater themes – themes that go beyond the limited palette that literary fiction claims to offer. Anything is possible in fantasy, and the genre can exercise our ability to think, and to wonder."(Newton, 2018) Even if it is a bit extraordinary or it is a bit irrational, its nonsensicality is always allowed in this genre since we can be anything, we can do everything without any limitation by letting our imagination run free. A film theorist Susan Hayward defines fantasy as the expression of our unconscious: "it is these films in particular that most readily reflect areas we repress or suppress – namely, the realms of our unconscious and the world of our dreams." (2000, p.108) These being substantiated reasons, I added the fictional mood in my experiment to elicit people's various opinions coming from their unconstrained imaginations.

Interview contents

Magical props

3 different colored magical props were shown and the participants are asked 'If you can have a magical power, which one would you pick? And what magical power will you have?'.

Cactus

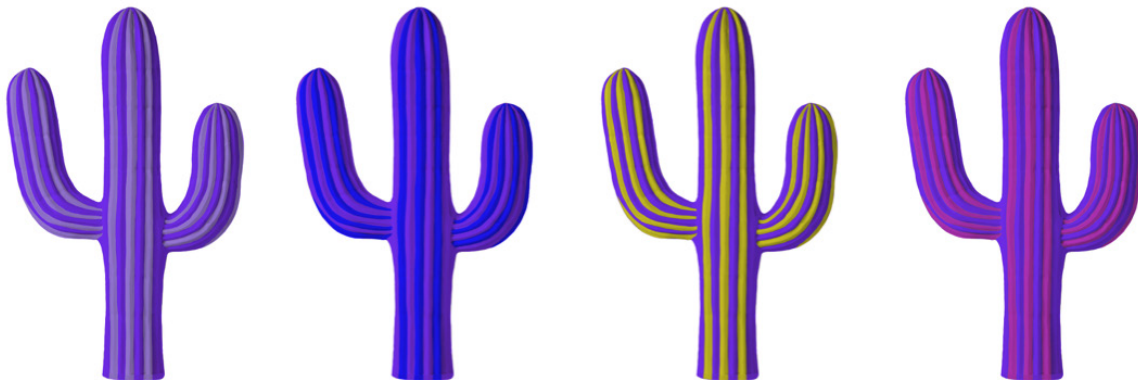4 different colored cactuses were shown and the participants are asked: 'If you can make juice with one of these cactuses, which one would you taste?'
An additional condition: it would not be harmful.

Butterfly

Figure 10

4 different colored butterflies were shown and the participants are asked: 'You met a butterfly in a forest, If one of the butterflies brings you somewhere you want, which butterfly would you follow?'

Mushroom

Figure 11

5 different colored mushroom were shown and the participants are asked: 'Which one would you taste?'.
An additional condition: it would not be harmful.

Egg

Figure 12

5 different colored eggs were shown and the participants are asked: 'The eggs will hatch soon. Which one would you be more curious about? What would be inside?.'

Outcome

More contrast brings more intensity

Simply, I assumed that a color combination with its complementary would be the most outstanding. As I expected, a number of people were attracted to the complementary combination. They seemed to like seeing bigger contrasts between colors. Moreover, it was interesting to listen to the reasons they gave for their choices. Someone picked the 3rd cactus (fig9) since she was curious about the mixture of the two most different flavors. And someone described the cactus as one with the most interesting taste. On the other hands, some did not pick the 3rd one for the contrast while stating that it looks poisonous. I figured out that more contrast brings more intensity. I also found out that the least contrast combination somehow looks safe and calm. For example, some people picked the 1st cactus and 1st & 2nd mushroom (fig11) because they look safer. Also, the 1st butterfly (fig10) is considered as the most trustable. At the same time, it was also seen as the most boring one. Someone said that the 1st butterfly doesn't seem to bring her anywhere exciting.

Interpretation based on their experiences.

After each interview, I was able to confirm that the interviewees make choices, both for the most and least preferred, upon their experience. In other words, most of the motivation of the interviewees choosing a certain object are linked to their memories, whether positive or negative. As I wanted to hear answers regarding more about visuals rather than usage of the object, I made a precondition that the objects shown are not harmful to consume. Nevertheless, some interviewees still tended to avoid dangerous looking ones, since, in their viewpoint, light-colored consumable goods are mostly toxic. From here dangerous, I mean by the least chemical looking and with

the least contrast based on their knowledge such as bright colors in food are toxic. Furthermore, some interviewees linked the colors with random themes from their personal memory, such as the colors from Harry Potter or from their favorite fashion designer etc.

Actually, I wanted to hear more answers based on the affect. Their interpretations were based far more on memories than just visual stimulus itself. By implying more stories putting my interviewees in a specific situation facilitated interviewees' to answer. But somehow it might have hindered to hear about people's affects. Especially, people are quite picky when they see the color of food. Rather perceiving a color which was combined with the food, judging whether the color is edible or not was a higher priority. I think I should not let them think about consuming the food. I mean, it would be better to ask which one would you want to have, not taste. Then, I might have a higher chance to hear answers focusing on visuals.

Ch 2.2 The fourth Experiment: *Affect on Color combinations*

The main purpose of the fourth experiment is to confirm the affect on people of color combinations. As with previous experiments, I prepared several images and questions. For each object, I set 2 main colors, one is a color related to the object and the other one is unusual color. For example, for a grape image (fig14), I set the 2 main colors as purple and orange. The main colors were combined with its complementary color, analogue color and monochromatic color. The reason why I set 2 main colors is to ascertain whether the information people already know influences their perception of the image. In addition, I prepared 2 questions for each image. Just after showing an image, I asked which one catches your eyes in order to see people's instinctive response toward the image. Next, I had following questions for each image. Through this, I wanted to compare people's affect and people's interpretation based on their consciousness.

I applied patterns (polka dots, stripes) on some objects as a method of showing color combination. It was also to produce distinctive visuals rather than constructive "meaningful" visuals, I wanted to show images which were not symbolically charged, thus, not much meaning included in the usage of patterns.

Interview contents

Apple

Figure 13

6 different colored apples were shown and the participants are first asked: 'Which one do you see first?' And following questions were: 'Which apple would be the sweetest?', 'Which apple would be the least sweet?'.

Grape

Figure 14

6 different colored grapes were shown and the participants are first asked: 'Which one do you see first?' And following questions were: 'Which grape would be the sweetest?', 'Which grape would be the least sweet?'.
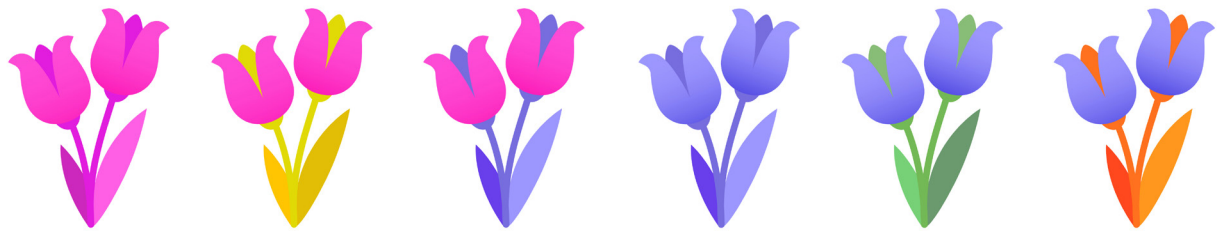
Tulip

Figure 15

6 different colored tulips were shown and the participants are first asked: 'Which one do you see first?' And following question was: 'Which tulip would smell the best?'.
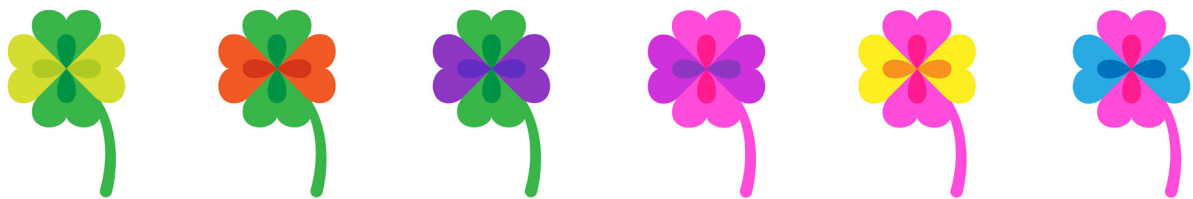
clover

Figure 16

6 different colored clovers were shown and the participants are first asked: 'Which one do you see first?' And following question was: 'Which clover seems bring you the most interesting luck?'.
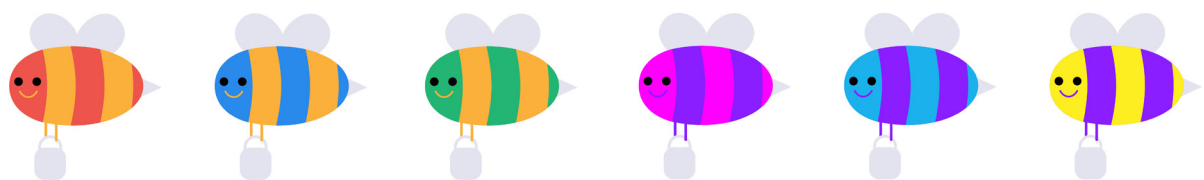
Bee

Figure 17

6 different colored bees were shown and the participants are first asked: 'Which one do you see first?'And following question was: 'Which bee seems bring you the sweetest honey?'.

Outcome

Affect :

Since people's responses toward the first question; 'which one do you see first?' were instinctive, people answered the question quite immediately and seemed not to have difficulty saying their choices. On the other hand, interviewees found it hard to describe reasons behind their instinctive responses to the images. For example, one of my interviewees (Michelle Mol, 21, studying illustration) said "This is just the first one that caught my eyes". In addition, since people accepted image unconsciously, all the answers were more focused on visuals rather than features of objects. The answers were more concentrated on the interviewees' quick and direct responses on the stimuli which colors bring, rather than spending time to think and relate with objects and its symbolic meanings in their memories. The result showed a certain coherence: color combinations which has bigger contrast and brightness tended to catch people eyes more.

Following questions :

According to the following questions for each image, people's answers were diverse and they differ based on each person's different backgrounds: memory, knowledge, culture, belief and so on. For example, on the questions about the sweetest one (fig13 & fig14), people tended to pick ones including pink color by linking to sweetness. The pink reminded them of sweet food such as peach, all the berries and even bubble gum. In addition, some choices were based on their memories or social norms. For instance, quite many people picked the 5th tulip (fig15) as the most fragrant one because the green leaves and blueish flowers look the most similar to actual tulips, and it led people to imagine its scent easily. People's affects showed a certain coherence, whereas answers toward following questions had diversity because of people's different interpretations based on different backgrounds.

Conclusion

First, I started desk research alone with my laptop, through this method, I was only able to get theoretical information such as history or symbols of color. It was one of essential information to understand color but this fixed and academic knowledge did not solve my curiosity about subtleness of color perception in human aspects. As color is more closely connected to our lives, I decided to go out in the world and understand color while having conversations with people. This led my research moves from an essentialist view of color to more relational dialogic understanding of color.

In the first experiment, I wanted to see people's reactions on the images without stereotypical usage of color. The color association is influenced by various matters and its fixed perception of color is held in our brains deeply, thus, it hindered people to think the color with a whole new perspective being out of general knowledge or social norms on color. Because of this, the unusual colored images led people to feel unfamiliar. However, interviewees did not have only pessimistic views to the unusual colors. I found out that people felt unfamiliar and attractive on certain images. Through the second experiment, I wanted to figure out the leverage point where the unfamiliarity turning into the attractiveness. Based on Gestalt concepts of combination, being more than the sum of its parts, I found out that when people read images, their personal backgrounds highly influence their interpretations and according to them, each person's perception differs. The first and the second experiments were more focused the interpretations of the image while for the third and fourth experiments, I wanted to focus more on people's instinctive perception on the color related to visuals. Based on Affect theory, I assumed that when we see colors, we don't come up with its meaning or symbol first, rather we accept color unconsciously. Through the third and the fourth experiment, I was able to confirm that people's instinctive responses toward colors do not pass through their conscious comprehension. Moreover, I compared people's affect and interpretation based on their consciousness. Most importantly, interviewees' affects showed a certain coherence, whereas answers toward follow up questions had diversity because of people's different interpretations based on different backgrounds.

In the beginning of my research, my questions were simply 'Why do I like to use unusual colors?' and 'How are unusual colors accepted by the audience?'. However, through the development of my research, I re-questioned myself : 'What is unusual color?' And 'What features of color arouse irrational feeling to the audience?'. I focused on only the color itself, in other words, I thought a certain color seems to be evoking a certain concept, while by the time of later phase of the research, I realized that I have to see all different relations between color and its context : what situations involved in the images, who sees the image and so on. Color itself has deeper and richer information than just its intrinsic meaning or appearance. I observed that by changing only the colors, an apple was seen edible to not edible and people judged their attraction level on an image

while thinking relationships between color and object. In addition, color is a tool of representing identities, personalities, today's mood, belief and so on. With one color, we can figure out so many information, most importantly, it should be considered in its related context. Although this might seem basic, this research helped me to confirm and gave a substantiated reasoning for my color usage.

To define how we perceive colors with only one method is hard to be fully explained, since we all have different backgrounds such as culture, experience, memories and so on. However, when we see colors, we don't come up with meanings or symbols first, rather, we perceive and interpret colors unconsciously. It is transformed differently according to one's interpretation which also varies based on their backgrounds. Colors can be perceived and interpreted differently, but colors cannot be defined as a fixed norm, there is no one answer. In short, colors can be colored on everything.

Evaluation

Before starting this research, I mostly followed my intuition when I picked the colors for my work, even though I considered colors as one of crucial features of my style. I believed the colors made my work more special and represented my identity but I only focused external effects of color and did not pay much attentions to its other effects. Definitely, there might be some reasons behind my attractions for certain colors; however, I usually had hard time describing the reason. I was able to feel which color is more suitable and appealing to use, but It was difficult to answer to these follow-up questions : "Why this color should be used?", "Why shouldn't other colors be used?" Through this research, I wanted to understand color deeper and most of all, I wanted to set substantiated reasons for my usage of colors.

As I was not used to building up an idea gradually, to be honest, I tended to generalize my thought too easily and assumed the conclusion by only reading some materials, not testing with images, and it hindered my ability to make in depth research. As a solution, I decided to conduct interviews with people to listen to what people are saying without a fixed conclusion and prejudices. Since I am used to extremely individualistic working habit, it was not easy to get out of my comfort zone. Having interviews with many people constantly gave me new perspectives and inspirations. This was built up and as the result, my thesis were full of first-hand information leading to a logical stream on how people react on colors. Most of all, I realized that my assumptions can differ from the public's. I strongly felt that listening to other people's thoughts helps me to enjoy the process by not clinging on to having an end-result. It also helped me to approach my design in different ways than I anticipated.

My research did not make tremendous changes to my visual language, but it definitely changed my view toward my works. Having another viewpoint, now I can see my works with more

diverse dimensions and perspectives. What I followed was just freshness and uniqueness, but now I can think about where the freshness and uniqueness come from. The colors I mostly use conjured a kind of irrational mood against the reality but contains a visual attractiveness, which I still would like to explore more. I realized that what I enjoyed was manipulating context by colors to defamiliarize our general understanding and transform it to the attractiveness. Most of all, I found out the substantiated reasons for my usage of colors and I feel more confident to the colors of my choice. I believe that this is also a meaningful movement for me as a professional designer who communicates with the public constantly.

Bibliography

Albers, J (1963), <Interaction of Color>, Yale University Press

Berger, J (1972), <Ways of Seeing>, Penguin Books, p.8

Birren, F (1950), <Color Psychology And Color Therapy; A Factual Study Of The Influence of Color On Human Life>, Pickle Partners Publishing, p.138~140, p.172,

Carlson, Neil R. and Heth, C. Donald (2010), <Psychology the Science of Behaviour Ontario>, Pearson Education Canada. p. 20–22.

Chadbourn, M (2008), <The fantastic appeal of fantasy>, https://www.telegraph.co.uk

Gage, J (1999), <Color and Meaning: Art, Science, and Symbolism>, published by Thames&Hudson

Hayward, S (2000), <Cinema studies: The Key Concepts>, Routledge, p.108

Hughes, R (1980), <The Shock of the New>, the BBC, - Ep.3 - The Landscape of Pleasure

Hughes, R (1980), <The Shock of the New: Art and the century of change>, the BBC, p.82

Locke, C. (n.d), <Matisse, Henri | Decoding His Color>, Available at https://musings-on-art.org/matisse-henri-decoding-his-color.

Johnston, H (2014), <Peter Helley | Rob and Jack>, TATE, Available at https://www.tate.org.uk/art/artworks/halley-rob-and-jack-t14480.

Lee, Moon-Jung (2018), <Between the revulsion and the captivation>, published by Dong Nyok.

Lee, Taeseong. (2017). A Clarification of the Emotion Concept in the Social Studies Education - Focusing on the 'Affect Theory' -. Research in Social Studies Education, 24(2), 23-38.

Shouse, E (2005) <Feeling, Emotion, Affect>, M/C Journal, 8(6). Retrieved from <http://journal.media-culture.org.au/0512/03-shouse.php>

Sabar, S (2013), <What's a Gestalt? Gestalt Review>, MSW, LCSW, 17(1), p.6~34.