

"Colour Theory in Art"

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Abstract

For the normally sighted person, colour is everywhere. In the interior of a dwelling are natural and stained woods, wallpapers, upholstery fabrics, pottery, paintings, plants and flowers, a colour television set, and many more things seen as colored. Outdoors, and depending on the time of the year, there is a riot of colours such as those on an alpine summer meadow, or they are spare in a desert, with olives, browns, garnets, and grays. Colours can be pleasantly subdued, enhancing relaxation, or loud and calling to us from advertising billboards or magazines. Colour entices us to eat, consume or at least to buy. Colour likely has helped us to survive as a species. Our (Known) contacts with the world and the universe are by way of our five senses. Persons with a normally functioning visual system obtain what is probably the largest amount of information about the world surrounding them from vision, and colour experiences are an important outcome of this flow of information.

KeyWords: colour, paintings, contrast, Principle, harmony.

I. INTRODUCTION

The question of the essence of pictorial art and beauty has been the subject of thought and discussion since ancient times. The philosopher Plato wrote that the result of drawing and painting is "dreams created by man for those who are awake".¹ He believed the purpose of pictorial art to be imitative, but image making could be either imitative of representing imagination or the fantastic.

Two thousand years, later Kant described the beautiful to be "that which pleases universally without requiring a concept."² He thought that to produce beautiful art required genius; products of beautiful art are a combination of taste with genius. Beautiful art pleases but it also raise feelings of the sublime.

Thinking about the purpose and meaning of pictorial art in human life has continued unabated, but the subject is found too complex to have its essence caught in a few sentences (Hofstadter & Kuhns 1964). "An unanswered question is if there are some fundamental processes behind aesthetics or if they are entirely culturally determined. More recently, creation of pictorial art has become subject of interest to neurophysiologists. Ramachandran (2011), on the basis of ideas of neural processing, is proposing seven aesthetic principles he considers largely

independent of culture, thus imposed essentially by nature."³

The first of these is contrast, minimally required to mark shape against their surroundings. We weak contrasts do not arrest attention the way high contrasts do. Then there is the specific matter of colour contrasts. The Second principle is isolation. Simple outlines and cartoon like image can have much more emotional impact on the mind than a detailed realistic photograph. It is a question of how much information the brain can effectively absorb in a short amount of time. Ramachandran call the third principle "peekaboo, or perceptual problem solving"⁴ It is exemplified by the experienced that for most people, the image of a scantily clad member. He thinks that we get inborn kicks out of solving incompleteness and ambiguities because early ancestors, even more then we today, had to solve them all the time when moving around in nature. Principle 4 is "abhorrence of coincidences"⁵. A completely symmetrical city would be considered boring. Ramachandran considers the symmetry preference to be due to the activities of the ventral ("Where") visual system and that of asymmetry to the dorsal (where)"⁶ path components of our visual system the last principle in the list is "metaphor"⁷ we tend to be fascinated by objects or even colors that are metaphors for some larger idea, difficult or impossible to express directly. This is not just a fact of high pictorial art but also of cartoons and comic strips.

II. THE RENAISSANCE

Beginning rteenth century, the political climate in Italy and easewhere in Europe was dominated by competing nation-states with generally strongly autocratic leaders who often supported the arts. This resulted in a rediscovery of the classical poets and philosophers and integration of certain aspects of classicism in to Christian thinking. It also resulted in a renewed interest in nature and effects to discover its secrets. Around the year 1400, the architect Pilippo Brunelleschi discovered perspective, which is of particular importance to painting."⁸ The correct treatment of perspective rapidly become important in banch painting, and knowledgeable artists guarded its secrets. Large fesco cycles in Churches and princly palaces became accepted norm. Chennini was a painter himself, and his practical experience is obvious. He described a drapery modeling technique that became known under his name. The pure pigment is used to paint the darkest area of drapery and all modeling is achieved

with increasing dilutions of the chromatic pigment with white pigment. As another possibility for dropery modeling, he mentioned the use of congiante (See later section)"⁹.

The Italian theorists decided that a painting required beauty (belleza), design (disegna), a clar relationship between light and dark (chiaroscuro), and colour.

III. COLOUR AND GRAPHICS

Increasingly, people access the web with high quality colour moniters. Therefore, colours and colour graphics are an important dimensions of website design. Understanding colours and how they can be used to enhance visual communication is the first step in the effective use of colour in site designs.

Colour, like many other design factors, appears deceptively simple to use. Colour options appear in numerous software packages on the market. Color can be selected spilled, painted, air brushed, or filtered in virtually every shade. Conservative colour wild colour, pattern and textured colour its everywhere, and most of us have been exposed to it since we were children from chalk art, to frayons, to the craft project in junior high, to painting a room in our house, most of us have worked with colour in one way or another.

When people declare that they are not artists, the often say, " I can't even draw a stick figure" No one ever says " I don't really know anything about colour." This assumed knowledge can after lead to poor colour choices by most novices desiners, this odd breed of professionals who are often thrown in to general mix other "artists" such as sculptors or painters are usually not born with an innate sense of colour Instead, most designers, are formally trained to understand colour and its meaning in communication."¹⁰

A. A Historical Note on colour theory

Over the years, scientists and artists have studied why human beings respond to some colour combinations more favourably than others. Often colour preferences can be very subjective and personal. This adds a dimension of difficulty for formulating theories about colour. Early work and experimentation began with the development of the colour wheel. These theories continued to evolve over decades explain particular patterns and behaviours. Distinguished colourists include, Me Coton , Goethe, Haze and Albers who explained both measurable colour attributes (Colourimetry) and subjective colour choices."¹¹

Hue - According to Munsell, hue is the quality by which we distinguish on colour from another." Light with different hues have different wavelengths. The terms hue and colour are often

used interchangeably in common language. But we will try to avoid that here.

Value- "The quality by which we distinguish a light colour from a dark one." It measures now bright or dark a colour is . At full value (brightness) a colour of any hue appears while, At zero value. (no brightness) any colour appears black.

Chroma- The ridness of hue. It differentiates deep blue from bale blue, for example, chrome is also known as the colour's saturation .Adding white paint to red reduces its saturation or chrome making it paler. A colour at full saturation is a pure hue .A colour at zero saturation is a shade of gray."¹²

IV. FROM THE SEVENTEEN TO THE NINETEENTH CENTURIES

Italian painting is often though to have declined it the seventeenth century into the baroque, the highest achievements shifting north and west as exemplified in the works of Rubens, Vermeer, Van Dyck, Velazque, Hals, Kembrendt, and poussin the seventeenth century was the time of major developments in many areas. European nations competed for world wide trading empires. Science began to break away from the classical dogmas about the world and humans that held sway over centuries, as exemplified by new theories of astronomers (Galilei and Kepler) or anatomists (Harvey). Philosophers Descartes and Spinoza used the haven of Hall to offer new world views that challenged church doatrines. Crimaldi in Italy and Newton in England investigated the refraction of Sunlight by a glass prismwith far-reaching impact on colour theory¹³

It was Agvilonius's graphic image of 1613 possibly developed together with Rabens, and Kirchers interpretation of it that may have formalized the place of yellow, red, and blue Felibien wrote in the second half of the seventeenth century an eight-volume work on the history of painting, including a biography of Poussin, with whome he was personally well acquainted (Felibien 1666-1688).Felibeien's three " Principal" or "primitive" ¹⁴ colours are yellow, red and blue, as mentioned in 1708 by the amongmous author of the article on pastel painting.

V. TWENTIETH CENTURY

With the beginning of the twentieth century and the continuing development of photography , the importance of representational art began to fade. In 1907, Pablo Picasso exhibited his Important les demoiselles d' Avignon, and soon the style of cubism dissolved apparent physical reality in to abstraction.

Another Bauhaus teacher, Paul Klee , expressed his views on form and colour in a 1924 speech "on Modern Art"¹⁵ Where he described the three important aspects of Painting to be line, lightness -darkness, and colour (Klee 1949) His three fundamental pairs of chromatic colour (Subtly

different from Kandinsky's) are red green, yellow violet, and blue orange in line with recognized complementary colours. He wrote of his art, " I have tried pure training, I have tried pure black-gray-white painting. In colour I have experimented with all partial operations to which the study of the colour circle led me. I have elaborated colour -weighted value painting. Complementary colour painting, colourfull painting, and total colour painting."¹⁶

VI. WORKING QUICKLY WITH COLOUR

Here we have three rapidly done sketches on a large scale. They could have been given a much more finished look, yet in this case, because of the big scale and the bold and quick process strokes, they benefit from being left as a vigorous stage which preserves a certain sense of liveliness. The artists were less interested in the details of these paintings than in taking part in a spontaneous exercise in colour, capturing the most important elements without worrying about the fine touches.

"Even the painting of the reclining nude on the patchwork quilt, a subject which would normally require intricate attention to patterns, avoids detailed finish. The artist has treated the subject in broad terms, in this instance deliberately painting the patterns on the quilt with a decorator's brush to maintain the idea of sketchiness."¹⁷

"In the early 20th century, Johannes Itten's theories on colour changed the way artists and scientists viewed the spectrum of colour in the world around them. Here, we outline some of Itten's basic tenets-many of which are still employed by artists today by Naomi Ekperigeon."¹⁸

VII. COLOUR HARMONY

In general, human beings respond strongly to colours. People often have strong likes and dislikes when it comes to colour. Whatever their preferences, most people respond positively to the harmonious use of colour. Harmony may be defined as a pleasing arrangement of parts such as in a harmonious use of colour. Harmonious colour creates an inner sense of order, a visual balance, which engages the viewer. Colour harmony implies that a colour scene is neither boring nor chaotic."¹⁹

The Oxford English Dictionary defines harmony in the relevant context as the "combination of parts or details in accord with each other so as to produce an aesthetically pleasing effect or agreeable aspect arising from an arrangement of parts."²⁰

VIII. THE PSYCHOLOGY OF COLOUR

Colour psychology works like this as light strikes the eye, each wavelength does so slightly differently. Red, the longest wavelength needs the most adjustment to look at, while green requires no adjustment whatever and is the most restful hue. In the eyes retina, these vibrations of light are converted into electrical impulses which travel to the brain-

ending up in the hypothalamus, which controls the endocrine glands, which in turn regulate part of the body, stimulating a specific physiological response, which in turn evokes a psychological reaction."²¹

IX. CONCLUSION

A considerable number of processes and materials can result in colour experiences. Many have been discovered by artisans and craftsmen over the course of millennia, but until recently, the underlying causes remained mostly hidden. Coloured materials (many used as colorants) are commonly thought to interact in similar ways with light, but their apparent colour is in fact caused by a variety of specific physical phenomena. Nassau has identified and described a total of 15 causes of colour, with four dealing with geometrical and physical optics, and those remaining dealing with various processes involving electrons in atoms or molecules of materials and causing absorption or emission of light at selected wavebands (Nassau 2003). With the exceptions listed earlier, colour phenomena have one common factor: light.

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I hereby declare that all information given on above are true of my knowledge correct & right