# The Chromatics Theory of "A Single Red in the Midst of Thick Foliage" 

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#### Abstract

The nature where we are is a beautiful world filled with emotions and colors. The Song dynasty emperor Zhao Ji had once set a painting theme, which was "It doesn't necessary to have much Charming spring scenery if there is a single red in the midst of thick foliage." It seems a casual word which contains abundant Chromatics theories. This thesis starts from the representation of red and green, and then analyzes the color composition principles such as specificity, comparison , harmony and the form beautiful principle of variety and unity. In the conclusion, the thesis has summarized the general methods and techniques of handling the screen lexical collocation of red and green.


## Introduction

Have you ever exclaimed how amazing a single red flower in the midst of thick foliage? Have you ever thought why a single red in the midst of thick foliage is so lovely? "It doesn't necessary to have much Charming spring scenery if there is a single red flower in the midst of thick foliage." The maverick single red is rather to the point than too much. It seems a casual word which contains abundant Chromatics theories.

## The representation of red and green

In the color order system, red and green, a pair of vibrant complementary colors, are two terminals in the color cycle. Red is enthusiastic, which gives people feelings of active, fervent, energetic and leaves people a strong visual impression. China is a nation which advocates red. For thousands of years, the traditional folk festival color is just red. In ancient times, women's dress regarded red as beauty, then there were compliments such as"red beauty", "red sleeve", "red makeup"to women. There is a sentence "Most Chinese daughters have desire so strong to face the powder, not powder the face." in the poem Militia women inscription on a photograph of Mao Zedong. In the history of our country, minium is red, which is a symbol of nobility and wealthy. So there are titles such as "vermilion gates", "red-lacquered doors of wealthyhomes", "vermilion carriages". However, red makes people think of fire and sun, which gives people bright, hope and enthusiasm. At the same time, red also makes people think of blood, violence and danger. Red is a color of enthusiasm, advancing, joy and also a symbol of revolution, danger and warning. Green is the most common and delectable natural color, which has the quiet of blue and the bright of yellow, and agrees with the lives of people and nature. Therefore, it has a function of balancing the people's spirit and eliminating visual fatigue. It can also bring a thinking of hope, life and safe. Green is a symbol of ideal, hope, peace, youth and ecology.

Thus it can be seen that red and green have a totally different visual perception and character trait. Putting these two contrasting colors together can not only acquire the harmony of the whole screen, and also constitute the fixed color collocation relation of "a single red in the midst of thick foliage". The Chromatics principles it contains deserve our intensive study and lead in all fields of color design.

## The color composition principle of "a single red in the midst of thick foliage" <br> The specificity form of "a single red in the midst of thick foliage"

From the composition point, "a single red in the midst of thick foliage" is a typical specificity. Specificity is the breaking of rules and the partial contrast of order. That is, in the law of the whole, a small part is different from the whole, but there are some relations between them. This small part is what we called specificity. Such as a idiom "stand out like a camel amongst a group of sheep", in which sheep is a regular existence while a "camel" has a body image different from sheep, so that "camel" is a image specificity. For the same reason, "a single red in the midst of thick foliage" reflects a phenomena of color specificity. In a large area of spirited green, a red flower is bloomed in front impressively, which would bring people endless surprise and unexpected things. Here, a large area of green is a reflection of regulation, while the single red exactly breaks the original green regulation and forms a partial comparison to constitute the phenomena of color specificity.

The composition of specificity plays an important role in fields of art design, and has a significant function of enlightenment to art designs and creations. According to the color composition principle of "a single red in the midst of thick foliage", partial color breaks the simplicity of the original design rules, makes the visual elements form a vision disparity in color, and then gives rise to people's psychic reaction to convey a strong visual impression. Secondly, the small part in the specificity composition in art design would always form an optical center to attract the attention and sight of people, stimulating vision, producing feelings of excitement, shock, question and wonderment, thus to make the image distinguish. Thirdly, in a screen, because the small part of color specificity forms a strong contrast with most regular visual image, it often attracts much attention to become the most conspicuous visual focus. According to this principle, the key content would be more eye-catching by distinguishing vivid colors with other visual elements, then plays a part of emphasize and stick out the title. Just as the most vividly demonstrates the theme and the main idea among the literary works is the "single red", the "thick foliage" are the other set-ups and descriptions. It's obvious that use the composition of color specificity principle of "a single red in the midst of thick foliage" for reference has a quite important significance to break rules, appeal attention and stick out the theme in art design.

## The color contrast of "a single red in the midst of thick foliage"

In the art of graphic design, if there are opposite factors between the visual elements, and the characteristics of one or each visual element could be strengthened because of the existence of the opposite factors, this is a contrast. This shows that the contrast reflects a kind of opposite relation. "A single red in the midst of thick foliage" is not only a specificity composition but also a contrast.

Firstly, in colors’ view, "a single red in the midst of thick foliage" shows a bottommost hue contrast. Hue is the appearance of color. Red and green are two colors with totally different color appearance. When we hear the name of these two colors, here are relevant impression of these two colors in our mind, this color impression is called hue. As the complementary colors which have 180 degrees interval in the hue circle, red and green can produce a quite strong visual conflict than adjacent colors and similar colors. When collocates the two colors together, the red would be redder and the green would be more green. Therefore, contrasting with the "thick foliage", the specific "single red" would be particularly conspicuous. There is a beautiful line in Du Fu's Serve as governor Li in early spring, "the peach blossom would be more tender if they are red, the salix leaf would be more fresh if they are green", the color contrast of "red" and "green" makes the scenery bright and outstanding, assumes a spring natural scene that the peach trees are in bloom and the willows are turning green.

Secondly, color also have characters like lightness and purity. Different color has different lightness and purity. Therefore, the basic characters and hue of red and green have decided the contrast relation in lightness and purity between them. Provided that every color changes their lightness or purity arbitrarily, it would cause a change of other characters. This difference of lightness and purity is a kind of contrast. While warm and cool is an opposite concept, which is a relative changes in temperature by contrasting two or more colors. Red is so passionate that makes people feel warm, while green is so quiet that makes people feel cool. This is the contrast between warm and cool.

Thirdly, it's not difficult to find out the contrastive relation from the literal meaning of "a single red in the midst of thick foliage". On one hand, "ten thousand" and "one" are both counting units, one to ten, ten to hundred, hundred to thousand, thousand to ten thousand...... The great disparity in quantity between "ten thousand" and "one" is just a contrast of more or less. On the other hand, seen from the level of visual modality, this number of quantity is bound to cause a size difference by the covering area in the screen between green and red, and then form a size contrast of the covering area.

Based on the above points, the contrastive relations, such as the hue, lightness, purity, warm and cool in colors, and the number of quantity, the size of area in visual modality formed by "thick foliage" and "a single red", is obvious. In the field of art design, contrast is a necessary expressing way, which can space out the image contrast and strengthen the visual stimulation by contrast. It's an effective measure to form the image visual impact by making the arrangement and combination of visual elements possess a contrastive relation in aspects such as area, size, color, number and so on.

## The colour harmony of "a single red in the midst of thick foliage"

Coordination and unification is a style of uniformity in variety that pursuing by graphic arts design and has both sense of wholeness and variability. This uniformity in variety is the unity of opposites. Opposition tends to seek "difference" in similarities and emphasizes the difference of image elements. While harmony tends to seek "similarity" in differences, presents a perfect sense of harmony under the situation of keeping the image in contrasting. "A single red in the midst of thick foliage" not only reflects the contrast relations in all aspects of red and green and also shows the harmony in composition principle.

Firstly, color psychology research shows that people can form an "after image" in mind to relieve the tired situation of over-stimulating the pure color nerve when their eyes stare at a color for a long time, which has a same shape and opposite color with the original color. This extra complementary phenomenon is "psychological complementary". When we stare at red or green separately, the visual perception system of people would find out the after image of this color by itself to harmonize the strong stimulation brought by pure color. That's the reason why we see the gray on red patch would be greenish, and the gray on green patch would be reddish. For another example, doctors stare at red blood for a long time during a surgery, the flow velocity of their body blood would speed up under the stimulation, which could give rise to visual fatigue and affect the accuracy of surgery. In this case, it needs complementary color to keep balance, so that doctors wear green clothes and gloves during the surgery, which just uses the harmonic function of red and green complementary colours. Therefore, the color matching relation of "a single red in the midst of thick foliage" not only reflects the contrast relation of colors, but also a kind of harmony of complementary color seen from the visual perception theory.

Secondly, the red and green in "a single red in the midst of thick foliage" would be so harmonious is that the large quantity of "thick foliage" and the small quantity of "a single red" make a pair of contradictory parties be harmony. Among all colors, red has the strongest visual stimulation and visual tension, while green is much weaker than red no matter in visual tension or in visual stimulation. The stimulation of color is proportional to its area. If the area of red has reduced, the stimulation of it would be weak accordingly. If the area of green has enlarged, the stimulation of it would be strong accordingly. Similarly, the contrast in lightness and temperature of red and green would be strong or weak along with the change of their area. Therefore, a large area of green matches with a little red can get a kind of visual harmony, which can be also called area harmony seen from the composition point. Just like the "thick foliage", the little sparkling red star and the tiny red collar badge on the medieval military uniform of Peoples Liberation Army, they are contrastive but not contrary, there is a kind of harmony in the contrast. During art design, contrast and harmony are always complementary, they are not only ambivalent but also unified and they make up a both comfortable and harmony image. This is a designing style which asks for unification in changes.

## The formal beauty principle of "a single red in the midst of thick foliage"

The formal beauty principle is the summary of experience and abstract conceptualization to beauty's forms of law in the course of creating the shape and process of beauty. It mainly covers symmetry and balance, harmonization and comparison, rhythm and metre, diversification and uniformity. Among them, diversification and uniformity can be also called transformation and uniformity, which is the bottommost principle of management forms in all art fields, the general rule and the supreme goal of formal beauty in art design. This formal beauty of transformation and uniformity is "harmony". The old saying goes, "the world gathers the myriad things to live", "harmony generates". Fang Xun, people in Qing dynasty, had mentioned in his Painting Theory of Landscape, "Harmony is vivid, the opposite is disappeared." The ancients had already extended their comprehend about "harmony" to art field, and understood the beauty of harmony in transformation and uniformity when all kinds of colors mixed together.

The color matching relation of "a single red in the midst of thick foliage" intensively reflects the supreme principles of form about transformation and uniformity. Just like balance, the balance in artistic style mainly indicates the balance of visual psychology, which usually includes symmetrical balance and non-symmetrical balance, not the absolute equilibrium in physics. Although symmetrical balance brings people a feeling of steady, it lacks a sense of breakthrough. While the non-symmetrical balance has variational innervation in steady and pursues vivid expression, which is the principle of form that more artistic style would choose. Gestalt psycology research shows that a big substance can obtain a kind of balance of visual psychology with a small substance. Like a large waterfall can obtain balance with a bird, a blossom can obtain balance with a small bee, a large green leave can also obtain balance with a small red flower. This is the equilibrium rule of "thick foliage" and "a single red" got from non-symmetrical balance. The same is to "a single red in the midst of thick foliage", the color matching relation in it includes the contrast relations of hue, lightness, purity, warm and cool, area, size, quantity and so on. Just because of the existence of these complex contrast relations and the diversions between them, on the contrary, the opposite parties tend to be harmonic, which exactly confirms the contradiction law about the development of things revealed by materialistic dialectics, that is, the opposite is the contrary while the same is the harmony.

Based on this, studying and exploring the formal beauty principle of "a single red in the midst of thick foliage" can cultivate people's perception about formal beauty to guide people create things better and use formal beauty principle to show the content of beauty more consciously, thus reaching the highly unity between the forms of beauty and the contents of beauty.

## Conclusion

An excellent designer can always be unique and change mediocrity to gorgeousness. Just like "a single red in the midst of thick foliage", what makes the thick foliage alive is the single red. Grasp the Chromatics principle of "a single red in the midst of thick foliage" accurately, take full advantage of the visual representation,composition principle and form principles, only in these ways can we correctly handle the color relationship of screen in art design.

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