

DEPARTMENT OF BUSINESS MANAGEMENT

Conducted by Paul C. Olsen.*

COMMENTS, QUESTIONS AND SUGGESTIONS ARE INVITED AND WELCOME.

Readers are invited to submit comments, criticisms and suggestions regarding the material which appears in this department. The Editor also will undertake to answer questions regarding general problems of business management. Letters of general interest will be published, but the writer's name will not be revealed without his permission.

THE PSYCHOLOGY OF EFFECTIVE DISPLAY.

(Continued from October JOURNAL.)

Color photography is a subject which has engaged the attention of countless experimenters for many years. Why are not the blacks, whites and greys of ordinary photography completely satisfactory? Why has there been all this effort to develop photography in colors?

Photographs and other reproductions look more natural when they appear in the colors in which they are to be found in real life. Objects are more readily recognized when reproduced in natural colors. In other words, color assists in recognition. It quickens the speed with which people on seeing something know it for what it is.

Colors not only help a person to recognize objects, but also cause things to be seen more quickly. That is to say, an object in black, white and grey won't be seen (under the same conditions) as quickly as one in colors. That is the reason that advertisements in color, in a magazine for instance, usually have a greater power to attract attention than would the same advertisements in black and white. The only exception I know of is, if virtually all the advertisements in a magazine are in color; then a black and white advertisement stands out. That, however, is the principle of contrast in operation.

Thus it appears that color has two values as an attention getter. Objects, photographs and other reproductions get more attention when in color, because then they are more readily and quickly recognized. Secondly, color of itself possesses greater attractive power under most conditions than corresponding objects, photographs and other reproductions in black and white.

In the preceding articles of this series I have been discussing various mechanical and interest factors which have the capacity to attract attention to displays. From the preceding paragraphs it is apparent, I am sure, that color, too, is an interest factor which can be employed effectively to draw attention to displays. But there are many different colors and, likewise, many different conditions under which they may be used. Naturally, therefore, some colors in particular situations are more effective in attracting attention than others. My object in this article is to point out some definite ways to use colors profitably in displays

* Instructor of Merchandising, Wharton School of Finance and Commerce, University of Pennsylvania, Lecturer on Business Administration, Philadelphia College of Pharmacy and Science.

to attract attention. To do this it is desirable to consider each of the principal colors separately.

There are two general ways in which the attention value of colors may be analyzed. The first is with respect to characteristics which are really inherent in the colors themselves. For instance, red is the universal warning or danger signal because red, to a degree greater than any other color, has the capacity of arresting the eye.

The second classification which may be made of colors is with respect to the associations which they call to mind. For instance, red and green together suggest Christmas; a golden yellow, Halloween; black, mourning, and so on. Green suggests forest coolness; and blue, coldness.

I have said that red is chosen as a danger signal because of its capacity to arrest the eye. A generally accepted theory is that the principal or primary colors are red, yellow, green and blue. It is believed that all other colors may be made from combinations of these four.

Bear in mind, please, that I am speaking of the creation of these colors and combinations of them only with regard to the way they are seen by you and by me. The way colors are made—that is the pigments used to produce them—is quite another matter. Our concern here is not with paint manufacturing but, rather, with the effects that these colors and their combinations have upon the people who see them.

In a consideration of the impressions created by colors—black, white and grey deserve special mention. Black is the negation of all color; in direct contrast to this, white is the combination of all colors. To prove this, it is only necessary to recall the experiment of hanging a prism of glass next to a window through which the sun is shining. The white light of the sunshine is separated in passing through the prism into its component colors, and shafts of these various colors appear on the opposite side of the prism.

Grey is the result of a mixture of black and white, and may also be obtained in another way to which reference will be made.

The four primary colors—red, yellow, green and blue—are divided into two groups. One group is called the active group and in it are included red and yellow. The other group is the passive group and it includes green and blue.

That simple classification has a very important significance for the person trying to create effective displays. The active colors have in them the capacity to reach out and draw attention to themselves. On the other hand, the passive colors seem to draw away and recede from the observer. A simple experiment easily proves this. As you stand at night on the rear platform of a moving train, notice how much nearer the red signal lights *appear* than the green signal lights placed side by side with them. Notice for how much greater a distance the red lights can be seen. Contrariwise, notice how much more quickly you first see a red light than a green light of equal strength, placed at equal distance.

The shrewd merchant will notice at once the attractive powers of red and yellow to draw attention to his displays. Don't overdo them, however. A mechanical factor in drawing attention to a display is intensity. But too much intensity, while it possesses tremendous power of attraction, repels almost at the instant

of attraction. People are drawn to but won't stare long at a powerful electric light. Too great a use of the active colors has the same effect.

The intensity of the active colors—red and yellow— may be used to attract attention without the risk of later driving people away, by making use of the passive colors. The passive color corresponding to red is green and the passive color corresponding to yellow is blue. In other words, the red reaches out and draws the eye to the display of which it is a part and the eye is held by the restful contrast of the passive green.

From these four primary colors, an infinite number of combinations can be produced. For instance, red added to blue results in various purples and violets. Red and yellow produce orange, a color of remarkable intensity because it is a combination of two intense primary colors.

A curious result occurs when red and green are mixed. The result is grey! That is why they are called complementary colors; one neutralizes the other. They are diametrically opposite each other and a mixture therefore is bound to produce a neutral result. In the same way, a combination of yellow and blue produces grey because they, too, are complementary colors.

These principles form the basis of color harmony. It is only human nature for the eye to be impressed unfavorably by colors which are inharmonious and likewise to be impressed favorably by colors which are harmonious. What makes some colors create favorable impressions and others unfavorable impressions?

A number of theories are suggested to answer this question. One theory which finds considerable acceptance is this: Colors which are complementary produce harmonious combinations because, as was explained in the case of red and green, one tends to relieve the effect of the other.

On the other hand, violet and deep orange do not produce a harmonious combination. Violet is a mixture of red and blue in which red is decidedly the more prominent component. Deep orange is a mixture of red and yellow in which red again is dominant. The result of the unequal mixture of red with two other primary colors, neither of which is a complement of red, results in an unbalanced and, therefore, inharmonious combination.

The mixture of grey with any color has a tendency to reduce the brightness of that particular color. The pure color—the color which contains no grey—is, therefore, brightest of all. A combination of colors of unequal brightness is apt to be inharmonious. With a little practice it is easy to tell whether or not colors are of approximately equal brightness.

When a color is mixed with white the mixture is called a tint. Tints of red, for instance, are the pink colors. Don't confuse tints with the combinations which are created by mixing grey with a color. A pink may be just as bright a pink as the brightest red is a red. The difference is simply that the tint has white in it.

When a color is mixed with black the mixture is called a shade. Shades of red, for instance, are known by such names as deep red, dark red and so on. Here, too, shades of colors should not be confused with the dulling of the intensity of colors which is produced by the addition of grey. Incidentally, the intensity or brightness of tints and shades, as well as that of pure colors, may be reduced by their mixture with grey.

Aside from the active or passive natures of various colors, many colors have a

particular significance or convey a particular impression. Red suggests warmth and fire and therefore its use tends to arouse attention, interest and action. Its active nature, however, is a reminder that too great a use of it for these purposes repels people and therefore defeats the very end for which it is intended.

Green suggests coolness, the woods and, in fact, all outdoors. Blue is suggestive of the sea. Less intense blues suggest winter and coldness.

Yellow suggests light and warmth. Gold, which is one mixture of yellow and red, suggests, of course, wealth and value. Purple suggests royalty and quality. White is the symbol of purity and black the indicator of death, mourning and despair. Black also is an indicator of dignity. Sometimes it is used effectively to give the impression of mystery. Steel grey also suggests dignity; in addition, it creates impressions of strength and solidity.

The significance of this so-called language of the colors is this. Suppose in a display a merchant wants to suggest the idea of purity. Perhaps his idea is to show the absolute sanitation and cleanliness with which candy is made in his kitchens and his plan is to put in his window some of the apparatus he uses in making candy. The mere use of white wherever possible in the construction of this display helps to convey to the minds of people who see it the idea he wants them to get—purity—because white by the very nature of the color itself conveys the impression of cleanliness and purity. Other colors may be used in this same way to help to convey to people the particular connotations that these colors have.

In addition to these universal reactions to colors, there are other reactions produced as a result of national and sectional customs and habits. For instance, red and yellow are favorite Chinese colors. Russia has a favorite red and Ireland its well-known green. Christmas colors are red and green; these colors in a Christmas display help mechanically therefore to strengthen the Christmas spirit which the display is designed to arouse.

Orange is the Halloween color and purple and white are the Easter colors. Sometimes the colors appropriate to a particular seasonal or holiday display will be all of the active group—reds and yellows. Halloween suggests, for instance, a liberal use of orange, so liberal, in fact, that its very intensity may drive people away. The orange can be relieved with black—certainly the most passive of all backgrounds. When this is not practical the brightness and intensity of the orange can be reduced if the duller orange hues are used. As explained before, the dullness of a color is measured by the amount of grey in it.

Contrariwise, when custom dictates that one of the passive colors shall occupy the most prominent positions in a display, such passive colors, the blues and greens, may be intensified if care is taken to make certain that they are of fullest brightness; that is, entirely free from the dulling effect of any greys mixed in them.

Colors in themselves when appropriately used have thus, it appears, the capacity to tremendously strengthen the attention and interest values of a display.

(A fifth article in this series will appear in the next issue.)
