

What Particular Advantages Does Ostwald's Color Theory Offer?

By F. A. O. KRUEGER

If a business man or a bookkeeper should be asked about any particular record or transaction under his supervision, it would be expected that he can give a complete answer. But should anyone be questioned as to arrangement or harmony of colors, very little of real value would be ascertainable. Some people designate certain colors by arbitrary numbers, which mean nothing to an outsider, and they differ with various concerns or persons.

This need not be the case today. There is a system of designating colors, which has been devised by Wilhelm Ostwald, which permits the designation of a certain color by three numbers, or by one number and two letters and any color in the entire color scheme can be segregated by this system and is an easy, International means by which colors can be designated without seeing them. For instance, I can telegraph a color as "7 ne", which would designate the first red in the Ostwald theory and is a color of a vermilion red with great purity and specifically of a purity called X, a white value of 0.056, a black content of 0.65. If one is in possession of a step photometer, such as are manufactured by "Zeiss," the shade in question and telegraphed above can be reproduced on the same in a very few seconds. Hence, one is entirely independent of the material or cloth on which this color may be.

Of course it is necessary to have some understanding of color theory and an ability to manipulate the apparatus mentioned above.

Such knowledge can be obtained from a brief abstract of the Ostwald "Color Measurement Triangles." For the amount of \$2.50 the Deutsche Werkstelle für Farbkunde-Dresden, Bautznerstrasse 125 (the German color studio of Dresden), will send a copy of the above with the necessary explanations. In it are contained 24 plates

of 240 different colors arranged in ten different cups. Every plate is provided with a hole in which the proper designation of Ostwald is given.

By a mere transposition of the cloth onto the plates, the color can be easily determined. The copy is so small that anyone can carry it in his pocket. Examples are given in it, comprising 24 different color steps in light, medium, dark, bright, as well as dull divisions. In other words, every color tone is taken care of. A descriptive pamphlet for grays, browns and olive colors is in preparation.

With the new order of colors it is possible to systematize the shades and the dye-great many superfluous shades can be eliminated, and at the same time the stock of dyestuffs can be reduced.

For the mill man and the dyer, this new order of color theory offers considerable advantages. In the future, it will be easier in this manner and by means of this method, to designate definitely what colors are desired. This naturally will simplify manufacture and dyeing of all textile materials. It will make it easier for the saleslady in a department store, to satisfy a customer with regard to particular colors desired. It will facilitate the selection of colors on the part of a customer.

Gradually, by constant use of the color theory as outlined above, one will become accustomed to its fundamentals and it will become easier to use it.

Of course, every material will not show the particular color in the same tone, hue and appearance, on account of different surface conditions of various materials. The same is the case with various colors on the same material. They will not appear the same on other materials. For this reason, the above mentioned studio is bringing out a pamphlet showing the Ostwald color theory on actual cloth samples. They have been published on silk, wool and cotton goods.

Color triangles of other materials are in preparation constantly and will be issued from time to time. It should be pointed out here that by means of the color triangles, colors can be much more easily

**Editor's Note.* A number of articles have already been published in different American papers, so that we can assume that most of our readers will be more or less familiar with Ostwald's Color Theory. This article just tells how this theory is applied in practice abroad. It might be of interest to note that there will be a meeting of textile men from a large number of European countries this fall in Geneva. The subject of this meeting will be the adoption of Ostwald's Color Theory in the textile industry. We shall keep our readers posted on these proceedings.

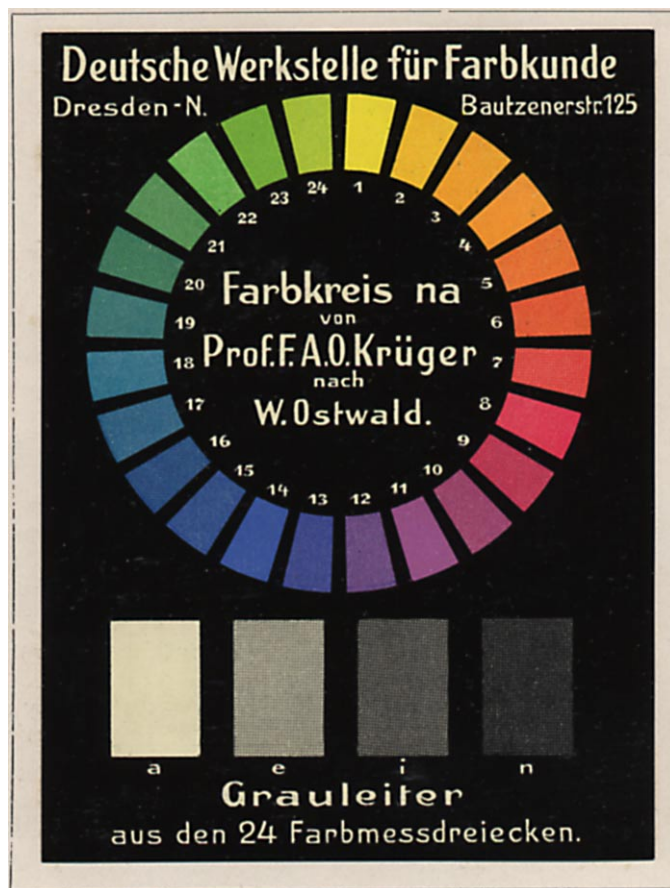
grouped in harmony and colors in various materials can be obtained in more equal tones, besides that they can be designated with very brief numerals or letters.

There are other advantages to this system. In a very simple way, harmonious colors can be selected to go with already determined colors. For instance, in order to find a proper blue to go with a "red 8", the color chart will, without difficulty, select the "blue 14". The difference in the color numerals is six, which is $\frac{1}{4}$ of the color circle and a very harmonious relation. If the same letter, i.e., ne is given to

both colors, they become equal in value and harmonize completely.

If the two colors should be selected so that they would have only one letter in common, like, for instance, in "8 ne" and "14 re" or "14 ie" or "14 na" or "14 ni," the selection would still be harmonious in such a case. In other words, the selection of harmonious colors is facilitated and they have definite relations to one another and their degree of variation in hue can be definitely ascertained by the small letters accompanying the numbers.

There are many other possibilities in this



COLOR CIRCLE na

BY PROF. F. A. O. KRÜGER ACCORDING TO W. OSTWALD.

This original chart was obtained from the Deutsche Werkstelle für Farbenkunde, Dresden-N, and shows the 24 principal colors and grey shades a, e, i, n to the 24 color triangles. Color measuring charts for wool, cotton and silk may be obtained from the Farbnorm Institute, Dresden. (See also special advertisement on adv. page 50.)

system which will be discussed at a later time.

In this way, colors can be selected and held in stock by the manufacturer, systematically arranged in the stock room and easily found when required. The selection of new colors becomes considerably easier. It is not necessary to match certain colors or samples, and instead, one designates and classifies the color on receipt of the sample. Since colors are dyed up in the stock room, it becomes an easy matter to match the shade and deliver the order.

In the designing of the ancient Oriental carpets, it was found that only 70 distinct colors existed, which included all hues and tones. The Ostwald color theory, however,

includes 240 colors. In other words, this is entirely sufficient and broad enough to satisfy any needs of the trade. A manufacturer can select from these 240 colors a certain number for which he has direct use and eliminate again from those certain staple colors, which he will use at all times, determine their definite color designations and numbers and adopt them for all times.

It can be noted from the preceding, that there is a great need in color work for simplification and a system of this type. It is merely a matter of becoming accustomed to the system and once one has grasped the idea, it is very simple in application.

In connection with this article see advertisement on adv. page 50 of this issue.