How-To-Do-It

Easily Made Reverse Color Text Slides

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Colorful title and graphic slides have, in the past, been very time consuming and difficult to produce. Custom made title slides, professionally produced by a photographic firm are very expensive ($10-$35 per slide). Recently, a new type of professional reverse color title slide film has been released to the general public. With reverse color film, you can make attractive, attention-getting slides with very little effort. This article will outline the procedural steps for preparing reverse color title slides and will offer suggestions about text printing and formatting.

Required Materials

1. Kodak Vericolor Slide Film SO-279
2. 35mm camera with through-the-lens light meter
3. Copy stand with flood lamps (3200K)
4. Multiple filters with holder (Cokin)
5. Close up lenses
6. Shutter release cable
7. Flatwork to be copied

Step One—Securing the Film

The professional film referred to in this article is Kodak Vericolor Slide Film SO-279 (see Some Final Notes 2.). It is available in 36-exposure rolls or in 100 ft. rolls. The cost of the film is about equivalent to other slide film ($6/36 exposures, $42/100ft roll—Jan. 1986). The exposed film must be processed by the C-41 Kodak Process

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($2.50/36 exposures) which is available in most photographic processing plants.

Step Two—Adjusting Lamps on Copy Stand

Exposure times, listed in Table 1, were made with a 35mm Minolta 570X SLR camera which contained through-the-lens light metering. The camera was mounted 30-40 cm from the copy material and the lights (3200K) set at 50 cm from the copy material. The illumination of the copy stand base is more critical than usual. With the camera in position (Figure 1) the placement and angle adjustments of the lights should be made by using light measurements taken through the camera or with a light meter. A Kodak Gray Card or the actual material to be copied should be placed on the copy stand base and a light reading taken with only one light set at a 45-degree angle. The first light is then turned off and the second one turned on. A second light reading should be taken. The second lamp should then be adjusted to produce equal illumination to the first one. The reason for this careful adjustment is to prevent different light intensities over the copy materials which could produce dif-

ferent shades of color in the finished slide.

Step Three—Using Filters

The slides will develop with white letters on an orange background if no filter is used. Variations in background color are produced by the use of different filters and exposure times (see Table 1). You will likely use one roll of film for experimentation. However, if you follow the suggested exposure combinations as listed on Table 1, you will get excellent results with the first roll. Alternate filters and exposure times will produce other color combinations. Careful recording of your exposure variables is important for later use.

Many types of filters can be used to produce different shades of reversals. Excellent results have been achieved by using inexpensive filters, such as the Ilford Cibachrome-A Filter Series. The Kodak Corporation recommends using their gel filters. However, the gel filters are rather expensive.

In order to produce the largest screen image possible, a variable close-up lens or fixed close-up attachment probably will need to be added to the camera. The filter holder is then attached to the close-up lens (Figure 1). The distance between camera and copy stand should be adjusted so that the copied material fills the entire field of view. This arrangement will produce the highest degree of magnification when projected on the screen.

The length of exposure of the film along with the type of filter used will determine the shade and color of the background. The exposure increase can be produced either by decreasing the shutter speed or decreasing the f-stop (Table 1 column 3). We have found it simpler to keep the f-stop
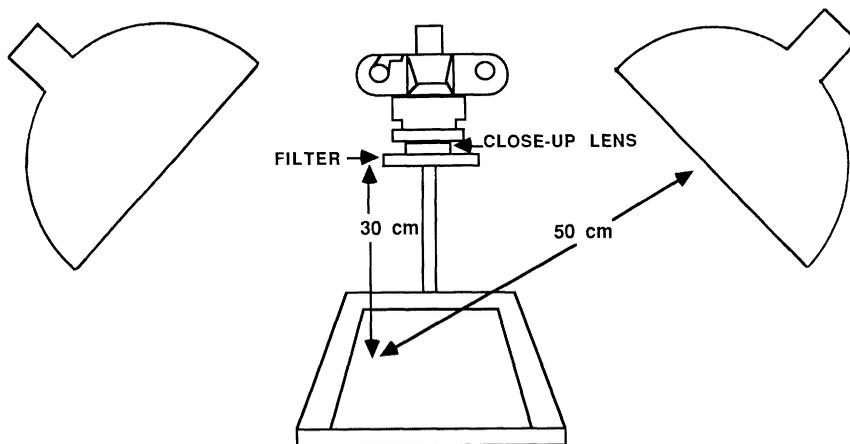

Figure 1. Equal illumination of the printed original page is important due to the sensitive nature of the reverse color film.

constant (f-8) and reduce the shutter speed to produce the exposure increases. A cable shutter release is required.

Step Four—Preparing the Flatwork for the Slides

There are certain basic guidelines for lettering which, if followed, will allow each person in the audience to follow visually the key ideas of the presentation. First, consideration should go to the print style or font. Far in the lead for readability are transfer letters, available in several styles and sizes. (e.g. LeterGraphic Typesetting System, Letraset, Paramus, NJ). Line and lettering spacing problems are nearly eliminated with lettering kits. This type of lettering format is somewhat expensive and more time-consuming than other methods, but it tends to remain the standard for amateurs. Commercial linotype printers are overall superior to transfer letters but they are very expensive. Certain typewriter heads (IBM Orator 100%) and daisy wheels produce excellent results. Most regular typewriters with Pica type (capitals) produce only borderline acceptable print. Nearly all dot matrix printers produce an unacceptable format but printer fonts are rapidly changing and some may soon be very acceptable.

A 3mm copy letter height (a pica capital letter) is the minimum height readable from the rear of a 30 ft. room from a 3 × 4 ft. projection screen. Lower case letters cannot be read from this same distance. A five-inch high projected letter would be required if it is to be read at the rear of a 100 ft. room. Thus, the number of lines and the length of lines of print per slide will vary somewhat, depending upon the distance between the audience and the screen. A slide, in general, should contain no more than eight lines of information plus a title line. Usually the size of print (>3mm) also will limit you to nine lines when they are double-spaced. As a general rule, the reader should be able to grasp the meaning of the slide in 20 seconds.

Kodak VSF slide film is not only useful with letters in title or narrative formats (Figures 2 & 3) but the reverse color also adds impact to graphic presentations including blueprints, flowcharts and other types of line drawings (Figures 4 & 5). Keep numerical data in the simplest form possible. Columns of numbers or percentages will not transmit the trend nearly as well as graphs (Figures 6 & 7).
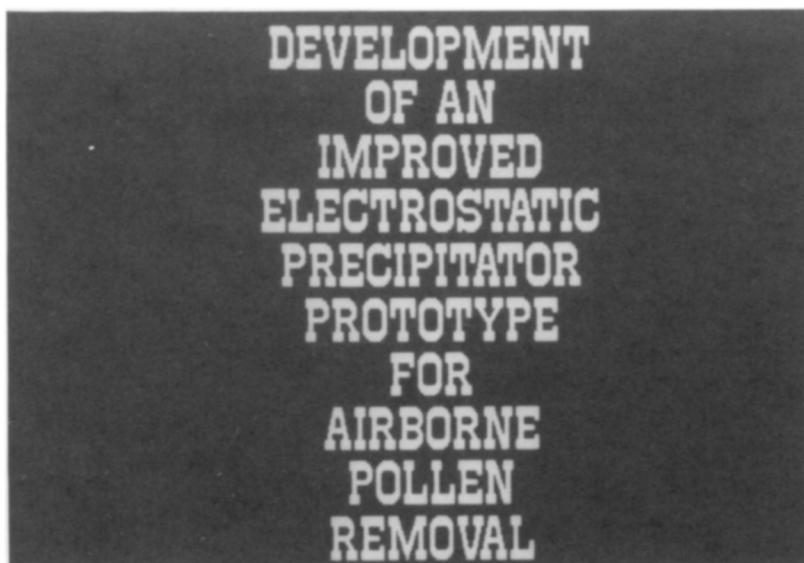

Figure 2. The primary use of reverse text slides is identifying the titles of presentations, proposals or books.

Table 1.

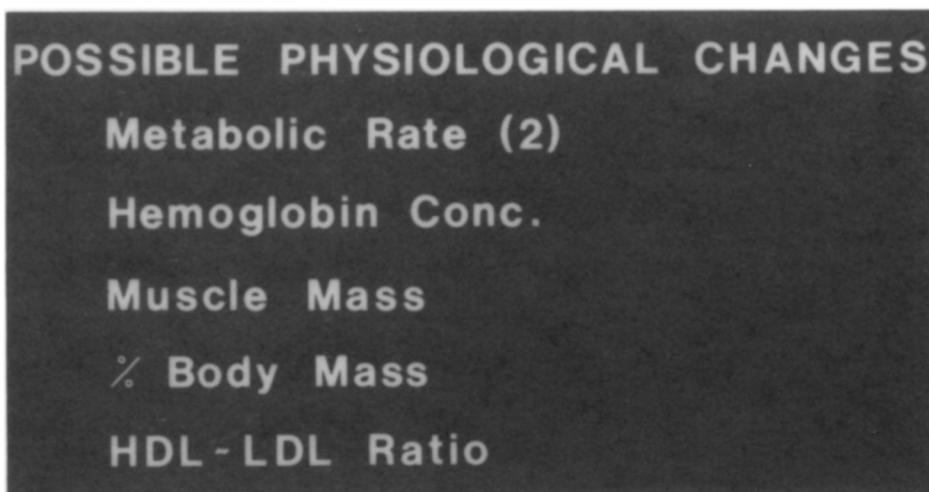| Desired Background Color	Filter Used	Exposure increase (in stops)	Auto Reading sec.	Manual Setting sec.
Yellow	.5 magenta	0	1/30	1/30
Yellow-green	.5 magenta	1	1/30	1/15
Orange	.5 cyan	2	1/30	1/8
Red	.5 yellow	3	1/30	1/4
Bright red	.5 yellow .5 cyan	2	1/15	1/4
Pink	.5 yellow .5 cyan	0	1/15	1/15
Gold	.5 cyan	0	1/30	1/30
Brown	.5 yellow .5 orange	0	1/30	1/30
Blue	.5 yellow .5 orange	3	1/30	1/4

Figure 3. In addition to titles, other subdivisions of a major topic can be displayed on the colorful slides.
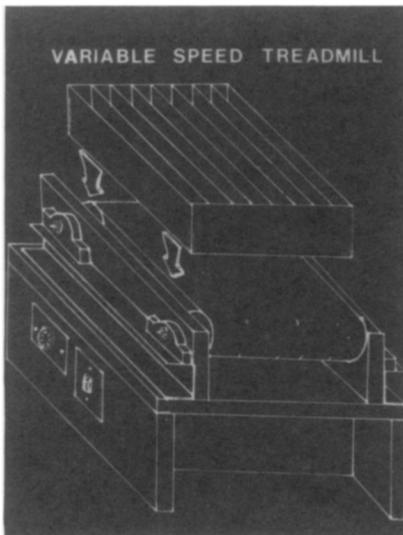
Figure 4. An expanded diagram is often more understandable than a photograph of the real apparatus.
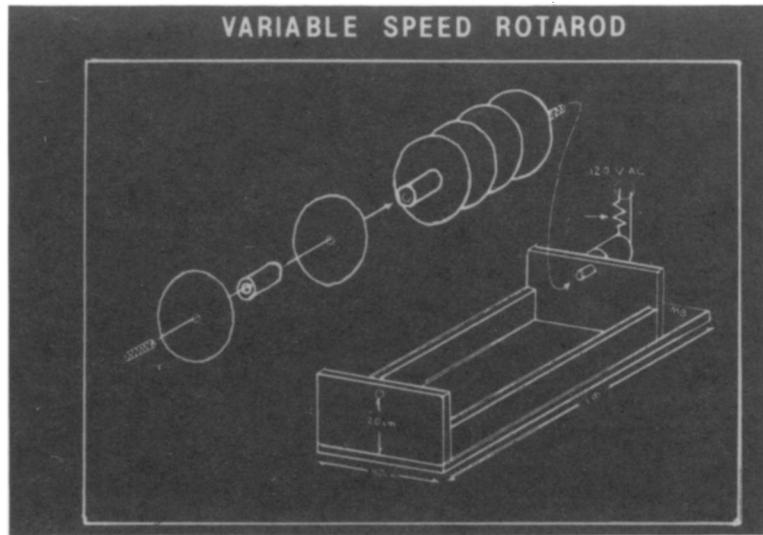

Figure 5. Dimensions can be added easily to a reverse color slide but not to a 35mm photograph of the actual object.

Some Final Notes

1. The photographs used in this article are black and white because this journal does not use color on its inside pages. The colors of the original slides represented in the figures were; 2. blue; 3. orange; 4. red; 5. gold; 6. yellow; and 7. deep red.

2. Kodak Vericolor Slide Film SO-279(VSF) is not generally available from your neighborhood drug store. It can be specially ordered by any film store or you can locate your nearest dealer by writing to Kodak Professional Photography Division, 343 State Street, Rochester, NY 14650. The catalog number of this film is 162-2364. Kodak VSF is a multilayer print film used for direct printing from color negatives or color internegatives to obtain positive transparencies. It is also possible to copy black and white line artwork to produce transparencies. The three-layer emulsion is coated on an acetate film base and is most often mounted in standard 2 × 2 in. mounts.

3. The authors of this article are particularly interested in unique color combinations produced through the use of this film. We solicit your innovations on the above listed procedural steps or other uses of this film.

References

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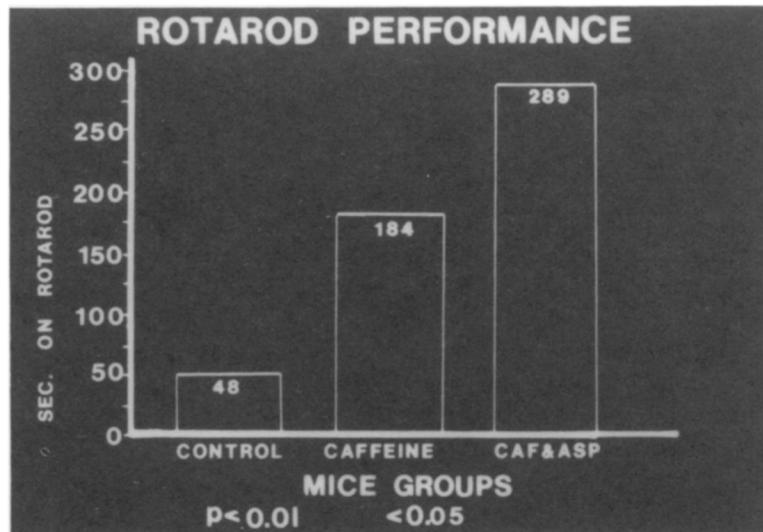
Figure 6. Graphic representation of data provides a quicker comprehension of the trend than do tables of data.
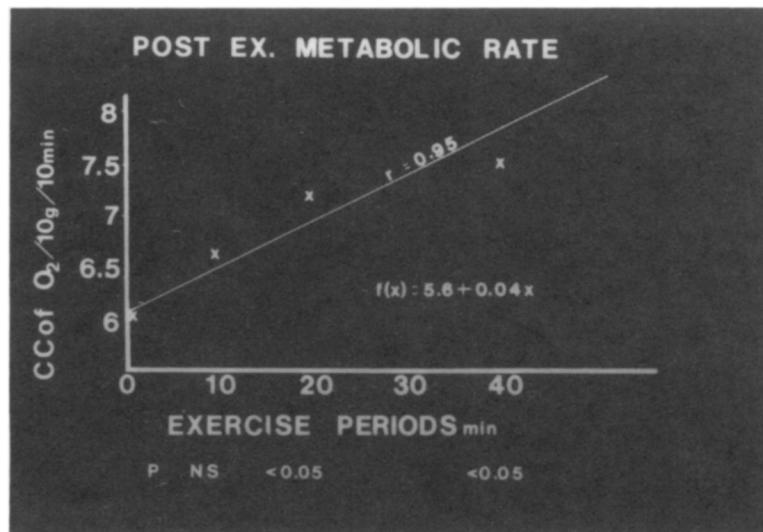

Figure 7. Variations in color allow the presenter to emphasize significant aspects of the presentation.