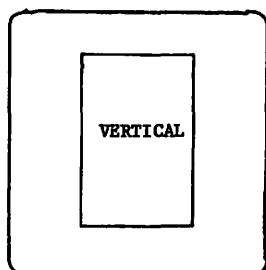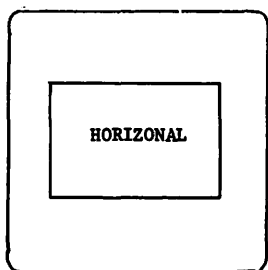# BLACK AND WHITE SLIDES

by

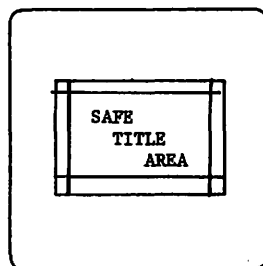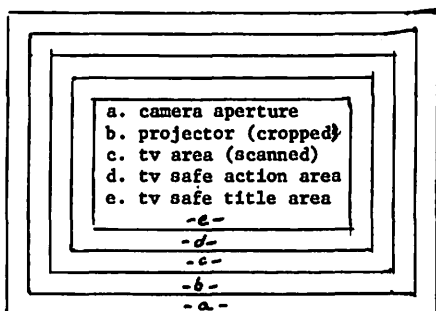Jackie Tanner

University of Virginia

Language Laboratories today handle more than just sound; they deal in pictures as well. Often their names are changed to "Audio-Visual Center" or "Media Center", with photographers and illustrators available to handle special services. With this new emphasis on the visual as well as audio, a good, centrally located slide collection often serves as a starting point for faculty and student slide sound presentations. For the A-V Director with a small budget or the teacher working alone, here is a new system for building a black and white slide collection—a quick and inexpensive way to use some well-known techniques. If the system works for you, it is easy to expand. Instructors or students can bring their books, graphs, or artwork to the lab and have slides prepared; or the instructors may prefer to use a private camera at home, take the pictures as research is done, and drop the film by the lab for developing. We also provide a service whereby our faculty members may pick up fresh film, arrange for copyright permission at whatever institution they are visiting, take the pictures they need for research, and return the film plus a good record with sketches or notes. Lab assistants develop the film, then glass mount and label the slides according to that record. The slides are then filed in the collection for use.

Kodak sells a high-speed duplicating film, LPD 4, in 150 foot lengths. Intended primarily for graphic use, it is not widely advertised. It may be divided easily into 36-exposure rolls on 30 Kodak magazines for use in 35mm camera. Its development is not critical; its chemicals are standard ones; and a darkroom is not needed for any of the procedures.

Because for many of our programs the final product is a slide sound show or videotape that can be loaned to other schools, it is important to keep both the scanning area and the safe title area clearly defined so that necessary information is not lost from the margins when the program is shown. Verticals are often cropped at the top and bottom of each slide during this process.

HORIZONAL

VERTICAL

enlarged version

a. camera aperture
b. projector (cropped)
c. tv area (scanned)
d. tv safe action area
e. tv safe title area

- e -
- d -
- c -
- b -
- a -

SAFE
TITLE
AREA

Equipment needed:

camera, 35 mm
cable release
copystand with lights
Kodak LPD 4 duplicating film
Kodak 18% gray card
non-glare glass
clock with second hand
photoflood bulbs

changing bag
bulk loader for film
Kodak film magazines
scissors
masking tape

developing tank and reel
bottles to hold solutions of chemicals
measuring cup
clothespins and twine
Dektol
Kodafix
Hypo Clearing Agent
Photoflo

There are many good models of bulk-film loaders. You need only to follow the instructions provided. It is suggested that anyone just
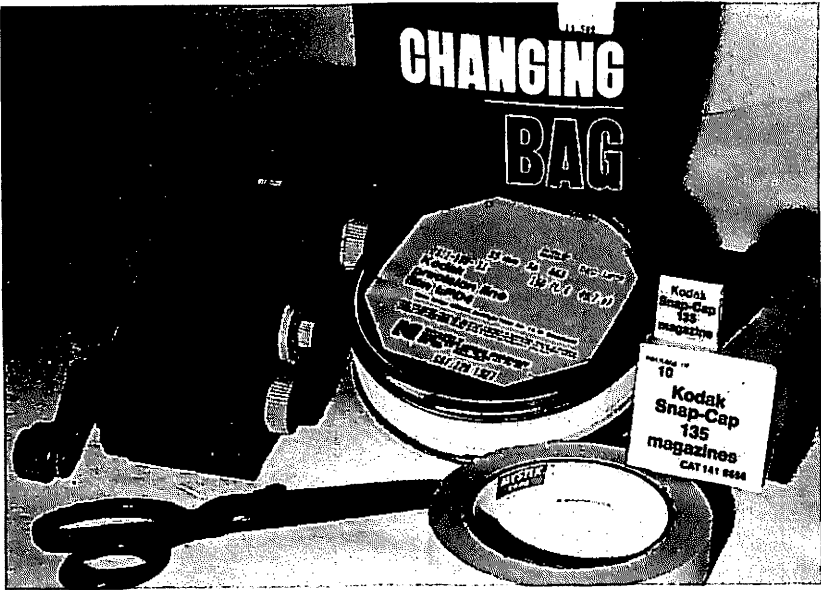
beginning to bulk load film practice the loading procedure with several old rolls of film spliced together before attempting it with new film. When you do your first roll, find a nice quiet corner and make yourself comfortable—it makes the first time easier. Label each of the magazines, and store them to prevent dust accumulation or accidental opening.

For the trial run, pick two different kinds of images, such as photographs or charts or drawings; one of these should be pure black and white, one should be a continuous tone image. Set up your system: a copystand with attached lights, or a tripod with moveable lights, and a clock with a second hand. Prepare a short ten-exposure magazine of film. Set up the lights, marking their positions with masking tape; adjust the tripod, attach the camera and cable release; insert the film; turn the ASA to your camera's lowest indicator; and start the clock.

Put the first image under the lens, focus, adjust the height, mask any unnecessary writing, cover the image with a sheet of non-glare glass if necessary to keep it flat and still. Keeping a good record, start your trial roll by setting your shutter speed on B, the F-stop on 5.6. Put the gray card above the image and press the cable release to open the shutter for two seconds. Continue to hold the cable release open, and with your other hand, remove the gray card and expose the image for two more seconds. Release the cable and advance the film. Repeat the process using exposure times of 4 seconds, 6 seconds, and 8 seconds. Then change to

Remove pan head
and insert from
below for an
A-V camera stand.
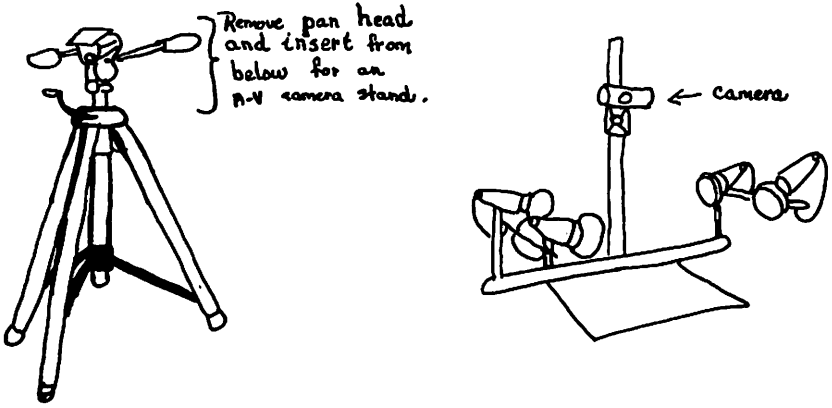
← camera

the second image, and repeat the procedure at the same exposure time intervals. Rewind the film into the magazine and remove it from the camera.

Unzip the changing bag, and inside place the scissors, film magazine, and developing reel, tank and lid. Zip up the bag, and insert your arms into the sleeves. Uncap the film magazine. Roll the exposed film onto the developing reel and put it into the tank. Put the lid on tightly, remove your hands from the bag, and unzip the bag.
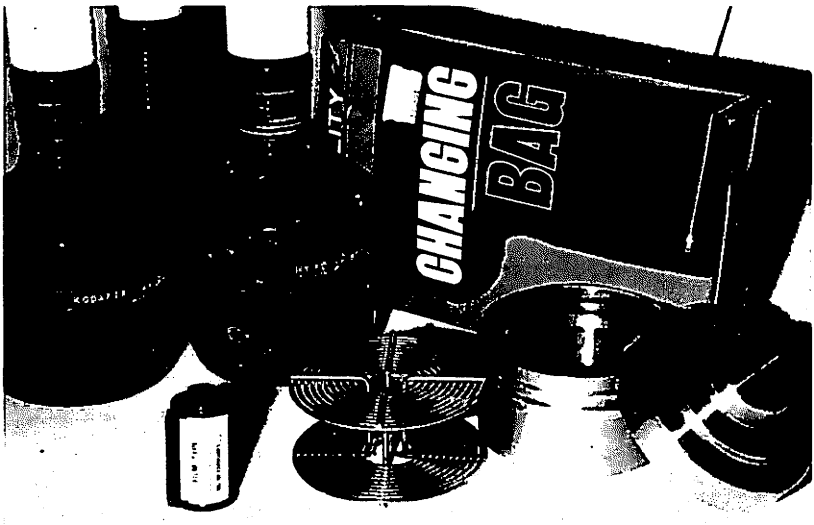
Dilute the stock solution of Dektol into a working solution (only as you are ready to use it, for one roll of film, ⅓ cup of Dektol to ⅔ cup of water). Unscrew the lids for the working solutions of Kodafix, Hypo, and Photoflo. Tilt the tank slightly and pour in the diluted Dektol. Cap the top of the tank and gently agitate it for two minutes. Pour out the Dektol solution. Fill the tank with water, rinse and drain it.

Pour the Kodafix solution into the tank. Cap it and agitate it for 1-½ minutes. Pour the Kodafix back into the fix bottle. Pour the Hypo into the tank, cap it, and agitate it for one minute, and pour it back into the Hypo bottle.
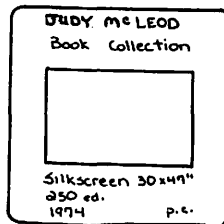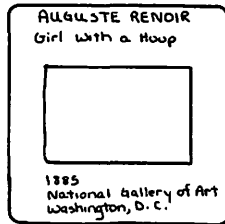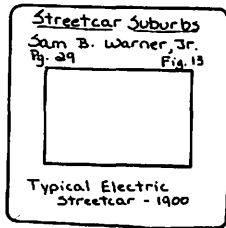
Remove the lid from the tank and rinse the film with several changes of water—three to five minutes—preferably with running water. Drain the tank, and pour the photoflo solution in for 30 seconds (no agitation). Drain the solution back into the bottle and hang the film to dry.

When the film is dry, compare each image in the strip with the first picture, looking for sharpness, detail, and contrast. Pick out the best two. Mount these two and project them, decide which one looks better on the screen. Write down on your copy stand the exposure, F-stop, and position of your lights which gave the best result. Repeat this procedure for the film of the second type of image.

Label the best slides with their proper titles, plus the above information (e.g., 5.6 at 4 sec., 25 in.). These will be referral slides.

When you are taking pictures, remember that LPD 4 is a positive film: the more exposure given, the lighter the slide. If your trial run lacks contrast, use a shorter exposure time with the gray card; if there is too much contrast, use a longer exposure time with the gray card. Examples of labels:

Streetcar Suburbs
Sam B. Warner, Jr.
Pg. 29   Fig. 13

Typical Electric
Streetcar - 1900

AUGUSTE RENOIR
Girl with a Hoop

1885
National Gallery of Art
Washington, D.C.

JUDY McLEOD
Book Collection

Silkscreen 30x49"
250 ed.
1974   p.c.

The final step is to set up a filing system and make sure the slides are titled for easy access and identification. These tools will be helpful in mounting and filing: a light box; signal dots to indicate the correct position for projection; Leitz tape for masking any unwanted areas that show in the slide; a Staticmaster brush to eliminate dust on the slide or glass mount; adhesive labels; and a practical slide mount (Gepe double glass slide binder or glassless mount). Good luck with your new project.

References:

Robert Speck, "Flashy Slide System", PHOTOMETHODS FOR IN-DUSTRY, Jan. 1972, pp. 43-45.

Robert Walker, "Black and White Slide Production: a multitude of means", INDUSTRIAL PHOTOGRAPHY, Feb. 1978, pp. 33-36, 56-58.

Kodak Publication on COPYING and PRODUCING SLIDES AND FILMSTRIPS.