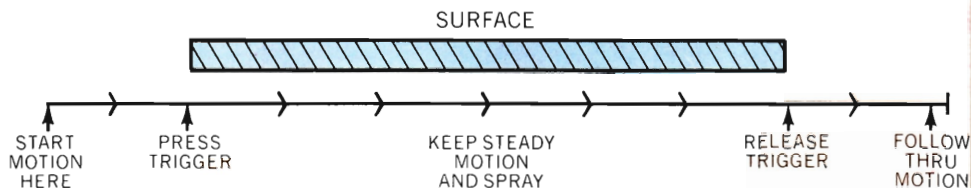
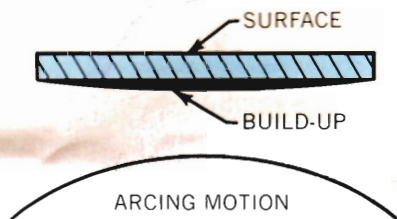


LEARN TO TRIGGER

Best results are achieved by a good constant motion. Start motion before pressing trigger, follow through motion after releasing trigger.



DON'T ARC



If air-brush motion is uneven,
paint finish will be uneven.

THE MOST COMMON PROBLEM

Runs and sags are caused by one or more of the following errors:

1. "Freezing" or forgetting to release trigger at end of stroke.
2. Holding air-brush still or moving too slowly
3. Holding air-brush too close to surface.



EXERCISE ONE

On a board or paper, lightly pencil in a number of $\frac{1}{2}$ inch squares. Hold air-brush about $\frac{1}{2}$ inch from the surface and spray paint small dots on the intersecting lines, as shown in figure 1. Use diluted india ink or water soluble colors. When you are able to place the dots accurately, begin enlarging the size of the dots (fig. 2) by allowing more color to flow through the air-brush, at the same time increase the distance between the air-brush and the paper or board. If the air-brush is held too closely to the paper, with the trigger pulled all the way back and down "puddles" will form and spread (as in fig. 3 and 4). Aim for accuracy not speed, and continue practicing until you can spray paint any size dot exactly where you want it.

This simple lesson will give you control of position and density of dots or shapes you require, which are important for touch-ups and fill in work.

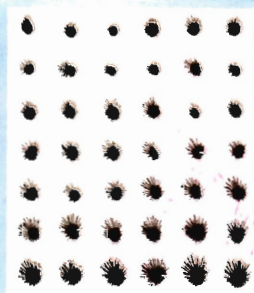
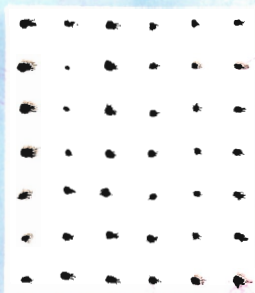
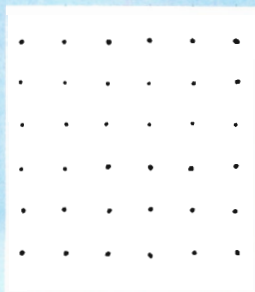




FIG. 5



FIG. 6

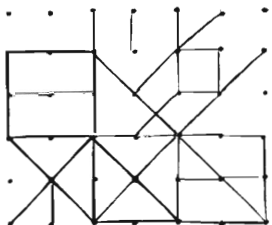


FIG. 7

This exercise, shown in fig. 5, will enable you to draw straight lines without forming dots or puddles at the beginning and end of each line. This is triggering again, see page 2. Fig. 6 is parallel lines graduating from narrow to broad. These are made by releasing more color and at the same time lifting the air-brush away from the surface. Practice daily to develop trigger action control. Fig. 7, as in lesson one, layout in pencil 1/2 inch squares. Air-

brush the dots as small as possible and connect dots with straight lines of even tone. Practice every lesson carefully before proceeding to the next one.

Note: Adjusting screw may be set for desired width of line, thus you will be able to spray the same thickness of line over and over again.

MASKING OFF

In the next several exercises you will need to mask off a square area. From the drawing (fig. 8) using four pieces of scrap paper tape down edge around area to be sprayed. These masks are held in place by scotch or masking tape, thus keeping the atomized material from creeping into the margins around the area. When using masks do not spray under the edge, spray over the edge.



FIG. 8



EXERCISE THREE / EVEN TONES

FIG. 9



FIG. 10

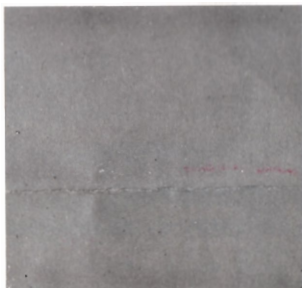


FIG. 11



To accomplish a flat tone, we will air-brush a fine consistency of paint from left to right at the top of the taped area. Holding the air-brush about four inches from the surface of the sheet, be sure to spray a portion of the tape so that no light line shows when masking tape is removed. Using the trigger technique on page 2 throughout this lesson. Now air-brush from right to left, overlapping the previously air brushed strokes; continue down the

entire sheet, trying not to create a line pattern with the air-brush and overspraying the tape, both right and left and bottom. Begin at the top again, and do the entire page. Repeat the exercise until you reach the desired smooth coverage of the entire area. Do not attempt to cover the entire sheet with a heavy tone at one time; build the tone gradually (fig. 9-11). Make sure the work and tape are dry before removing the masking tape;

this should be done carefully to avoid tearing the surface of the paper it is adhered to. If your first

results are not satisfactory repeat the lesson until you are satisfied.

EXERCISE FOUR / VARYING SHADES

FIG. 12



FIG. 13

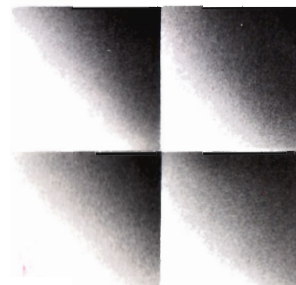
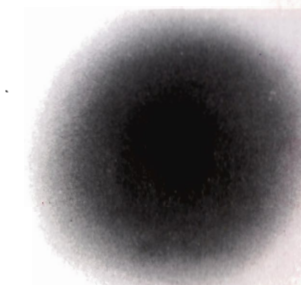


FIG. 14



This lesson is similar to the previous one. This time you will start at the bottom and gradually fade into the white, do not fade abruptly and do not carry the tone further than 2/3 or 3/4 of the page. Remember you must stop your tone shorter each time, since the overspray will build up. Fig. 13 is a combination of masking and varying shades. The

important thing in this is to train your eye so all the small squares have the same tone value. Fig. 14, spotlighting, is achieved by masking the area and then spraying toward and across the corners with most of the overspray being deposited on the mask.

TECHNIQUES TO USE

Masking or frisket is used mostly when more than one color is applied. A new frisket is cut for each color and covering any area that should not be sprayed. Frisket paper is available at art supply stores.

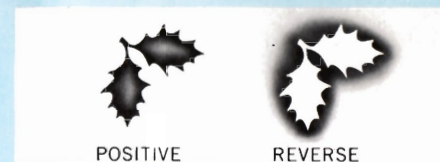


A flat surface mask can be cut from acetate or stiff paper. For a sharp edge, hold mask flat in position. For a softer edge, elevate the mask slightly by resting on ruler or other flat object.

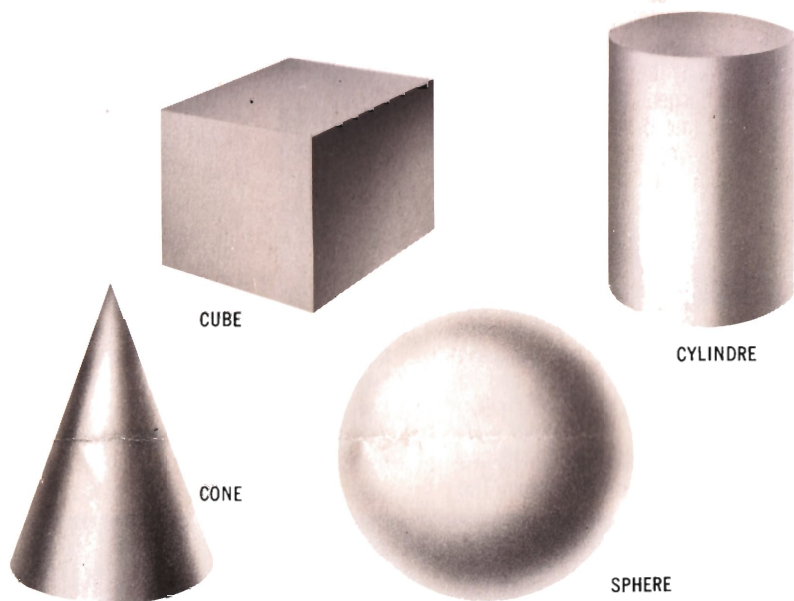


For contour masking (models, ceramics, etc.) use masking tape, scotch tape, or frisket and cut to desired shape, make sure edges are pressed firmly against surface. In addition, office supply stores carry Avery pressure sensitive labels. These labels make excellent masks.

STENCILS



Stencils are used when a design needs to be duplicated. Ideal for posters and decorating. Cut from stiff paper, hold firmly in position and spray starting with edges and work inward. A reverse stencil can also be used, spray along stencil edge.



Rendering these basic forms will provide instruction and sequence in shading these shapes, which really cover all of the shapes you will encounter. Combinations of these forms make up all of the various products etc. In air-brushing these shapes, it is a general rule to have the light source coming from the upper left hand corner at about 45°.

CUBE make a line drawing lightly about twice the size of illustrations above. Cut a frisket for the outline and dividing lines of the separate sides, at this time remove the frisket from the side farthest from the light source. Gradually air-brush a tone from upper left corner to the lower right hand corner. Repeat the gradual dark tone as necessary then remask the finished side and start other sides until desired effect is achieved.

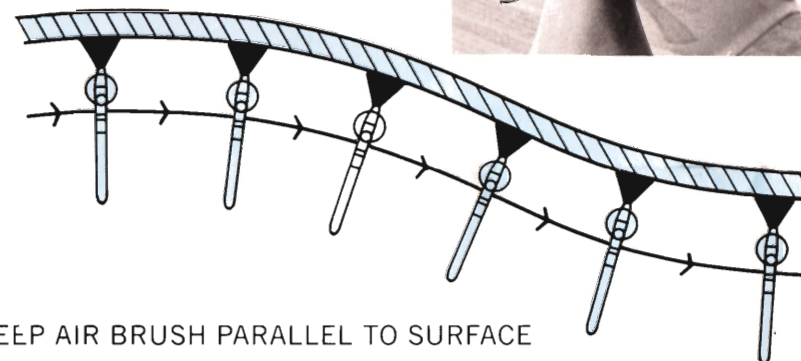
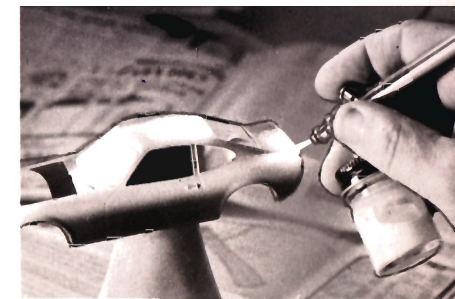
CYLINDER note how the light varies on the cylinder and makes the top flat surface different from the curved area. The frisket is cut along the curved line, and while the top is masked the side is sprayed, then the side is masked and the top is sprayed. Only practice will enable you to know how dark to paint one side of the subject while the other is masked.

CONE again cut a frisket of a cone shape. Remove the cone shape from the frisket. Start air-brush action from the top; paint and flare slightly toward the curved base, repeat the action on the right side until tapered appearance as in illustration above.

SPHERE place a frisket on the board making sure the remaining portion of the board is not exposed to air-brush overspray, then using a compass knife cut your circle and remove. Gradually air-brush lightly around the entire edge of the circle in a curved, rocking, back and forth motion, next from the bottom right hand portion of the circle air-brush upward toward the center not quite reaching the center. Allow a high lighted circular portion of the sphere near the upper left hand portion continue until sphere takes on three dimensional appearance.

Prepare object to be painted, masking off any area that should not be painted. (Be sure object is clean and free of dust, grease, etc.) Small objects such as models, etc. should be hung or placed on a pedestal so all areas to be sprayed can be easily reached. (A stand may be fashioned from an ordinary wire coat hanger, or bottle, etc.) Hold nozzle of air-brush about 6 inches from surface. Use short strokes, moving air-brush constantly at a steady rate, **parallel to the surface**. Don't

spray too heavy; rather, apply a light coat, let dry then another coat, let dry, etc., until desired coverage is achieved.



KEEP AIR BRUSH PARALLEL TO SURFACE

PHOTO RETOUCHING



BEFORE

Obtain an 8x10 glossy photograph of any subject. The photograph must be handled carefully to prevent a crack or fold in the emulsion. Photo must be mounted before retouching. Mounting can be accomplished in two ways; wet mounting and dry mounting. In wet mounting, a rubber cement is used on the back of the photo and also the mounting board. Allow both surfaces to dry then put a piece of paper between the photo and board. Leave upper edge of photo (about 1") touch board,



AFTER

carefully pull out paper between photo and board, hold photo at the top. Roll photo firmly in place, remove excess rubber cement from board. In dry mounting, use dry mounting tissue cut exactly to size of photograph and tacked to the back of photo with tacking iron, then place photo on mounting board. Place a piece of paper over photo and put in dry mounting machine for 10 seconds. Clean the photo to remove all fingerprints and grease. This is accomplished with sterile cotton and energine,

plain water, or saliva. This might seem unsanitary but it is an excellent grease remover. Rub gently across the entire surface before beginning the etouching. Keep surface moist or the cotton will stick to it. Determine what work must be done on the photo. Use masking tape on edge of photo in order to retain a clean appearance. Cut friskets

or use dry masks to accomplish the desired effect. Work with a sharp knife and use care in cutting friskets, not to cut the surface of the photo. Keeping in mind that the furthest portion should be done first to prevent working across a finished area. Retouch the photo using the skill you attained in the other exercises.

MIXING PAINT

You can custom mix any color combination you wish. REMEMBER paints must be compatible . . . that is, mix enamels with enamels and enamel solvents; lacquers with lacquers and lacquer thinner, etc. Paint is applied to the color cup by means of a bristle brush. The paint consistency is softened and prepared in the palette and transferred to the color cup; you can mix the color in the cup. The consistency should be such that it will coat the brush, but not color the brush solid with color. The paint should stick to the sides of the cup, but not thickly color the sides. Be sure to buy a top grade brush for mixing your paint, an expensive brush will lose its bristles and clog your air brush. We recommend a number 4 through 7 red sable brush.



Thinning: Most jar paints are too heavy to spray. Approximate thinning guide; 1 part water to 1 part color/1 part enamel thinner to 1 part enamel/1 part acrylics to 7 parts water/2 parts lacquer thinner to 1 part lacquer; to thin automotive lacquer, consult spraying directions on side of container. Approximate proportions vary with manufacture, more or less thinner. When using acrylics or lacquer: remember they dry very quickly. For better results the projects should be continuous, that is,

the air-brush should not be set down for more than a few moments before resuming spray. Keep an extra pan or jar of solvent and dip head assembly in jar, this will help prevent paint from clogging up air-brush. Be sure to take color cup or jar off and start fresh; especially with acrylics and lacquers, as soon as you have finished one spraying, and will not resume again for a while . . . spray thinner through air-brush until all paint is cleaned out. See maintenance and cleaning.

MAINTENANCE AND CLEANING OF YOUR AIR-BRUSH

The air-brush is a precision engineered tool for professionals and hobbyists. Like a good watch, it requires proper handling. Proper care and common sense will produce a long service life. Keep your air-brush and color cup and/or jar clean at all times and do not leave the air-brush standing with material in the color cup for long periods, since this tends to gum the cup and internal feed channels. Keeping your air-brush clean cannot be stressed too strongly; most of the problems encountered can be traced back to an air-brush that has not been cleaned properly. If the needle is removed from your air-brush for cleaning purposes, which should be done after using, (use proper solvent) make sure it is replaced properly and is snug against the tip. Do not jam it into the tip.



Fig. 1 To clean the color chamber, remove the color cup and insert a bristle brush into the hole that the cup fits into, turning the brush to clear the chamber of the paint. Also, the chamber can be cleaned by placing cotton on the end of a reamer, inserting it into the hole and removing the residual paint from the chamber. The latter operation is performed with the needle removed from the air-brush.



Fig. 3 To clean the color cup, screw off bottom of cup, use a bristle brush to swirl clean water inside surfaces, repeat until all paint is clear from cup and bottom.

You will find that a residual stain will remain on the needle. One method of polishing it is to hold the needle flat on a worktable; then run a pin eraser the length of the needle (being extremely careful not to bend the tip) turn the needle slowly by rolling it toward yourself. This will remove all stains and paint particles from the needle body. Be sure to remove all eraser particles by running the needle between your thumb and forefinger. When replacing needle in air-brush, be sure to tighten needle chuck firmly; needle will not move and you will be unable to shut off color flow. Always protect the tip of the needle; it may protect beyond the spray regulator and be susceptible to bending.



Fig. 2 Another method of cleaning the air-brush is to back flush by filling the color cup with clear water, or thinner, placing the air-brush underneath the tabletop to prevent color splatter on your work, and pulling back on the lever while pushing down full air passage, with your finger or soft cloth covering the tip. This will flush the color backward through the air-brush, clearing and purging any leftover paint from the chamber and cup.



Fig. 4 After removing the needle from the air-brush, which is accomplished by loosening the needle chuck and withdrawing the needle straight outward from the back of the air-brush, proceed to turn the tube shank assembly out of the air-brush body by turning in a counterclockwise direction. The trigger can then be lifted out of the body.