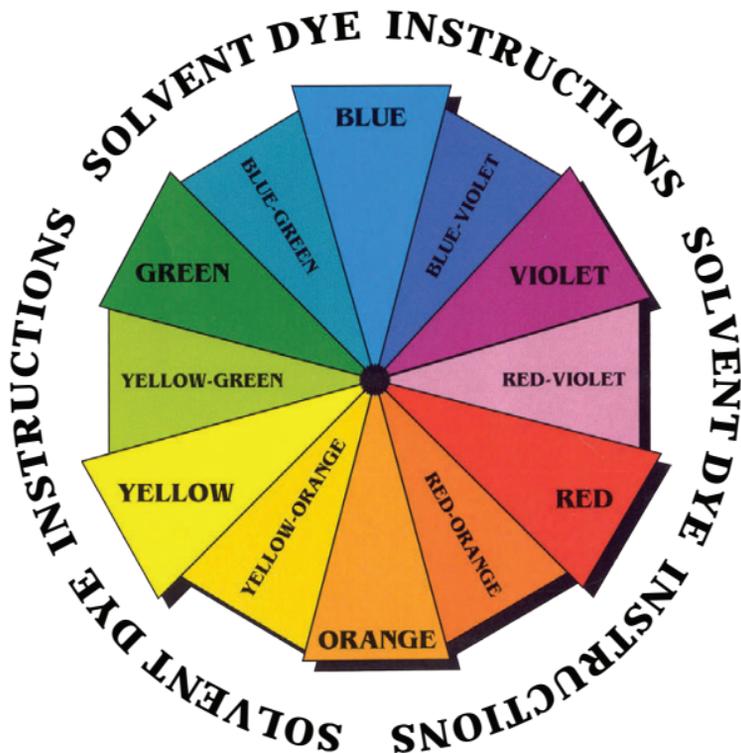


Sculpt Nouveau

Patinas and Metal Finishes



SAFETY MEASURES

Personal protective equipment is extremely important when working with these strong materials!

Goggles and protective clothing, function as a physical barrier between you and the material. If material gets on your bare hands it could take a week to wear off. Please be very careful and always remember to wear gloves! In every case, skin and eye protection must be selected on the basis of the nature of the hazards presented by the product and procedure used. Since vapors and spray mists should not be inhaled, suitable ventilation must be provided or respiratory protection devices should be used.

Specific safety and health regulations regarding personal protections equipment are covered by the Occupational Safety and Health Act. #29CFR 1910/132-140

IMPORTANT

Volatile solvents may make the products flammable. Your work area must be clean and properly designed for use and storage of flammable liquids. They should be kept away from all sources of ignition including heat, sparks, flames, motors, burners, heaters, or pilot lights. All products and solvents should be stored in a flameproof metal cabinet.

BE VERY CAREFUL WHEN USING THESE PRODUCTS and KEEP OUT OF THE REACH OF CHILDREN!

INTRODUCTION TO SOLVENT DYES

Ron Young originally developed the Solvent Dyes because of the need to match finishes while doing restorations. These Solvent Dyes were designed as a tool to enable you to apply a difficult color (violet, red) to a difficult material (steel, glass, resin), to change or enhance an existing color or to repair a damaged finish.

You can do the following with solvent dyes:

- * Apply over a new or existing surface and over patinas.
- * Blend colors together to get the desired color.
- * Use to tint solvent lacquers, epoxies, resins and waxes.
- * Apply directly on aluminum, galvanized, non-ferrous, and ferrous metals without corrosion occurring.

A few notes on Solvent Dyes:

- * White is opaque, all other colors are transparent.
- * Dyes are concentrated. Dilute with Dye Thinner for desired transparency.
- * Dyes are UV stable in all colors.
- * As Dyes are applied, they can be lifted off or blended together. When dry, they are permanent with binders to hold them.

HOW TO USE DYES

Always start with a clean surface. The dyes will not hold on a polished metal surface. Before using the dyes, if you have a mirror smooth surface, the material must be etched with an acid, or sandblasted. Sandblasting will affect the shiny quality causing a satin or matte-like surface. The reflective quality of the dyes, therefore, will be diminished. An alternative to sand blasting is to sand with 400 - 600 wet-and-dry sandpaper. After the dye dries, you can pull off the high areas with a cloth saturated with thinner. This will give your piece a dark-light, three-dimensional look. When working with dyes, the patina or surface should be cold. A light mist of a solvent based clear top coat should be applied. If there is movement or blurring of the dyes, spray a light coat of "Deft Wood Finish". Be sure to reapply another layer of protective sealer when finished.

THINNING DYES

Solvent dyes are concentrated. They should be thinned with Sculpt Nouveau's Dye Thinner in order to see through to the material surface. The dyes are so concentrated that thinning actually creates a more beautiful color. They can be diluted with any amount of dye thinner without affecting holding quality or the ability to resist ultraviolet rays. Sculpt Nouveau's Dye Thinner is superior to the others because it contains a bronze inhibitor. Those without binders and inhibitors will rub off shiny material and dry faster, making it more difficult to spread or mix the colors. Additionally, binding is weakened with other thinners.

MIXING DYES

To reach the desired color, mix the dyes in a glass or metal container (not plastic or Styrofoam). Test a small amount on white paper to see the results. The dye will mix or blend during your application by overlapping them while they are still wet. You can drop Dye Thinner on the dyes after they are applied to create different effects.

NOTE: These dyes evaporate quickly and tend to bond to the surface almost immediately. You may have some time to lift off unwanted dye with the Dye Thinner or alcohol. Try to keep the container lids on, if possible. The dyes bond to the surface better if you let them set 12 hours before spraying on any kind of protective coating. After spraying the coating, if it is lacquer, you may want to put the object in the oven for 1/2 hour at 100° F to 150° F. This will help set the finish.

Color Mixing: To make colors lighter add white or a lighter value of the same color. To make colors darker add a deeper value of the basic color. Most colors may be made darker by mixing them with their complementary color.

DYE COLORS:

Primary: Red, Yellow, Blue

Secondary: Orange, Violet, Green, Blue Green

Others: Black, White (opaque), Brown

DYES ON FERROUS & PRECIOUS METALS

The dye works directly on ferrous and precious metals. No primer is necessary. Remember, the metal cannot be mirror smooth. With the metals that tend to rust or corrode, be sure to use a good protective coating. The dye can also be used by jewelers to tint copper, brass, bronze, silver, gold, lead, tin, or zinc.

To duplicate a bronze look on iron, steel or aluminum, mix brown, a small amount of black, and a small amount of orange Solvent Dye to the Dye Thinner or Clear Guard Lacquer.

To duplicate gun bluing on iron, steel or aluminum, mix black and a small amount of blue Solvent Dye to the Dye Thinner or Clear Guard Lacquer.

DYES ON NON-FERROUS METALS

Bronze, Brass & Copper

The dyes work directly on bronze, brass, copper and most patinas. Patina your piece first, then change or enhance the color with the dye. Orange, yellow, and brown dyes work best with the Traditional Brown Patina group, while blue and green dyes work best with the Traditional Blue Patinas.

Again, you may dilute the dyes as needed to achieve the look you want. The dyes are meant to work cold. If you are covering a hot patina, allow it to cool first.

DYES ON OTHER MATERIALS

Solvent Dyes may be used on glass as well as metals, wood, clay, plastic, plaster or cloth. On glass, or other highly polished materials, the surface must either be sandblasted or etched. Use a primer first on a very absorbent material such as canvas, paper, or plaster. This will keep the dye on the surface. Sand-blast, etch or sand any mirror surface.

RESINS: As with mixing the dye with Clear Guard Lacquer or other clear coating, you may color polyester resins with the dye. Just add dye to your resin mixture according to your desired finished color. For restorations, the dyes will color epoxy.

TIPS FOR USING DYES OUTDOOR

Nature is hard on outdoor art. Any finish, whether it is paint, patina, or dye will undergo some type of change. Good maintenance procedures will help retain the desired appearance.

Solvent Dyes are designed for interior work but may be used outdoors if you follow these rules:

- (1) Apply 2 or more coats of protective coating
- (2) Make sure the protective coating has its own UV inhibitors
- (3) Apply 2 coats of wax over the clear coat
- (4) Create a maintenance schedule for your work and follow up on it.

DYES FOR LACQUER ON METAL

The dyes are very concentrated so only a small amount is needed in a lacquer. For example, two to four drops are all you need in a two ounce container of lacquer. If you find the color is too light, you may build up the transparency slowly by applying more coats, or by adding a drop or two more of the dye to the solution. This will increase the intensity of the color. Dyes may also be mixed together to change colors, but remember keep in mind that the more dye you add, the darker, or deeper the lacquer will become.

All dyes are transparent except white which is opaque. If white is used with the transparent dyes, you will get a wide range of pastel and opaque colors. These colors will cover the material surfaces quickly. One coat may be enough. All dyes work quite well with solvent based clear finishes and no significant color changes have been noted. Nevertheless, depending on the ultra-violet inhibitor in the coating, colors may change if your bronze work is left outside. These dyes have been tested outside in lacquers and have held up for many years, which gives reason to believe that they will be very stable. There are two ultra-violet inhibitors in the dyes, a bronze inhibitor (for disease) and a corrosive inhibitor.

When spraying a clear coat with Solvent Dyes it is best to use an air brush for a smooth coat. Hold the air brush about 12" - 15" away so it will dry instantly. If you are using the soft cloudy sponge technique, hold the air brush 4" - 6" away so it doesn't dry too quickly to use the sponge.

METHODS OF APPLICATION

Dyes are very easy to work with. Use a piece of sponge or brush, string, cotton swab, paint brush, or anything else you can think of to achieve the look you want. You may pre-mix the colors in a container, or blend them right on the surface of your piece. When the dye is dry, you can apply other coats. You may even go back over the protective coating after it is applied with another layer of dye. Alternating layers of dye and protective coatings will build up an interesting finish.

Speckling with a toothbrush:

The toothbrush works well to produce a speckled look and can be applied over patina or directly to clean shiny metal surfaces. Dip the toothbrush into the dye and draw your finger across the bristles with the brush end toward the area you want to speckle. You can apply many overlaying coats to produce a pleasant effect. Wear Gloves!

Crumpled Typing Paper Technique:

Crumple a small piece of typing paper (again, dilute the dyes with the thinner) and dip the crumpled paper into the dye. Apply the dye by dabbing onto the surface of your material. This gives your piece a serrated look. You may want to repeat this technique with more than one color. Each time you choose a

different color, choose also a new piece of typing paper. Three or four different colors, one on top of the other, provides a pleasing result. The crumpled paper technique is Ron's favorite way of applying the dyes. Remember to let each coat of dye dry before applying the next coat if you don't want the dyes to mix together.

Cheesecloth & Cotton Balls:

Select a piece of cheesecloth about 8" x 8". Put your cotton balls in the middle, close it up, and then dip your cotton balls and cheesecloth into the solution (diluted dyes) and pat them onto your piece. This gives the surface a marbled look. It's an excellent way of accomplishing a stone-like quality and other different patterns. Be careful not to over-saturate the cotton balls. Ron uses two layers of cheesecloth to hold the cotton. Depending on how much of the solution is in your toothbrush, crumpled paper, or cheesecloth and cotton balls, will determine the quality of the pattern. You might want to buy a disposable palette plate for this process. Palette plates with little reservoirs in them are available through art stores. They work well for holding dyes, or you may use a small bowl or dish.

The "Nerf Ball" Technique:

You can buy Nerf Balls in almost any toy store. They are basically an open-grain sponge. You can use these to create a pebbly pattern as opposed to something

with edges or speckles. Roll the Nerf Ball over the surface. Don't forget your gloves!

Stippling Dry Technique:

With a short bristle brush, dipped in dye, a variety of patterns can be created by dabbing or stippling up and down on the surface of your piece. Avoid getting too much dye on the brush. You may wish to have a towel handy to take off some of the excess dye for this technique. You may also wish to use a dry brush to pull off some of the dye, but you must do it fast. The dye may also be put on with a soft cloth by dabbing or by simply rubbing it around in a short circular motion. Stippling with a short bristle brush may also be used for hot or cold chemical patinas. Rope, string, or yarn may also be used. Dip them in the dye, then drop them onto the piece.

Spattering:

Load the spattering brush with dye, clear top coat, etc. Then, by tapping the long side of the spattering brush on a wooden block, as it is swung over the surface of the piece, you can achieve a random spotty look comprised of large, medium and small spots.

To control the spotting, let your forefinger pass up and down the brush's bristles thereby releasing a few bristles at a time. Then lift your finger off

the bristles and repeat the process. In this way the spattering is controlled and directed. As in any procedure, practice makes perfect. Don't forget your safety goggles!

Wet or Dry - For a soft cloudy texture:

Select a fine, natural, cosmetic sponge, or a natural sea sponge. Use the sea sponge to apply dye, clear top coat, etc. You may wish spray with a dye/clear top coat mix, then use a dry cosmetic sponge to pull off some of the dye mixture. Don't wait too long to sponge and pull off because it may dry quickly.

Spraying Dyes with a Crown Sprayer:

The Crown Sprayer is available from Sculpt Nouveau and many distributors and paint stores. It also works well with chemical patinas.

Spraying Dyes with a Badger Airbrush

The Badger Airbrush also works well with chemical patinas because, like the Crown Sprayer, it is made of glass and plastic.

PROTECTIVE COATINGS

After you've achieved the texture or pattern quality you want, let the dye dry a recommended 12 hours before applying a protective coat. Allow the protective coat to set for another 12 hours so that it will harden. Dye will last by itself, but it's recommended to apply a protective coating. It is necessary to apply a protective coating for outdoor work. The dye bonds very well to clean shiny metals, but it is not as intense as it could be if you apply a protective clear coating.

Note: Most coatings pull the dye into the coating, and the bond is not as strong, but it intensifies the color. Placing the object in an oven at 150° F helps the coating bond to the surface.

Sculpt Nouveau's clear professional wax is also a good protective coating. The wax lays on the surface well, and will not pull up the dyes as do thinner based protective coatings. Waxes, however, are not as strong a protective coating as a urethane.

Clear Guard protective lacquer is preferred for jewelry, and is recommended when working on shiny metal surfaces such as gold. Clear Guard is durable and will protect your jewelry from scratches. Deft Wood Finish clear gloss also works well. Sculpt Nouveau's dyes, when used with lacquers, varnish, shellac, or Polyurethane, are best applied with an air brush for a smooth coat. For

spraying liquid, hold the air brush at a distance of 12"-15", so that the liquid will dry instantly. If you are using the soft cloudy sponge technique while spraying on the liquid, hold the air brush about 4"-6" away so the liquid does not dry on the surface before using the sponge. Several brief passes works better than one heavy coat when spraying, as a heavy coat tends to run. Ron lets the dyes for another 12 hours to allow the coating to dry and harden. Regardless of which coating you use, Ron recommends as the final process (with the exception of wax coatings), that you bake your piece in an oven at 100° to 150° F for 30 minutes. This will solidify and harden the coating.

Solvent Dye Instructions - Using Deft Spray:

After applying the solvent dye, we recommend a 'set coat' of lacquer. A set coat is a light mist of spray lacquer. If a heavy layer of lacquer is applied to the dye, the dye may smear or run. Because the solvent dyes are very similar to the Clear Guard Lacquer, we have found that even a light mist of Clear Guard will spot, or run the dye. In order to avoid any distortion to the dye, use Deft Clear Wood Finish spray lacquer to set the dyes. After the Deft has dried, apply the spray Clear Guard as the clear top coat – Sculpt Nouveau's wax may be applied over the Deft as well. Deft Clear Wood Finish is easily found at Home Depot or other paint stores.

THE THREE DIMENSIONS OF COLOR

HUE: That characteristic of a color which visually identifies it by name - Red, Blue, Green, etc.

VALUE: The relative lightness or darkness of a color: Low values are dark and high values are light.

CHROMA: The degree of relative intensity of a hue. As color is made more gray, or neutralized, its degree of chroma is decreased.

Each of the three dimensions of color has a definite application in patination.

HUE is important to the artist. It has a psychological impact on the viewer. Moods of the patina may be emphasized by the selection of an appropriate range of hues. Normally, red and yellow hues are regarded as being warm and blue and green hues as cool. Warm colors appear warmer and cool colors seem cooler when contrasted with their opposites in temperature. On metal surfaces, warm colors tend to advance while cool colors seem to recede.

Chroma (intensity of hue) is important because within a hue the artist can simulate depth and emphasize contrasts through variations in intensity. Colors of low chroma tend to recede when contrasted with colors of higher hue intensity.

Value is the only dimension of color which can exist outside of color in a range of achromatic colors between black and white. Value is probably the

most important dimension for the artist seeking to simulate form and effect emphasis through contrasts in light and shade.

COLOR MIXING

To make colors lighter, add white or a lighter value of the same color. To make colors darker, add a deeper value of the basic color. Most colors may be made darker by mixing them with their complementary color.

COLOR HARMONY

Yellow + Red = Orange

Yellow + Blue = Green

Blue + Red = Purple or Violet

Red + Black + a little Yellow = Brown

Red + Green = Brown

White + Black = Gray

Gray + Red = Citron

Gray + Red = Russet

Gray + Blue = Olive

Red + White = Pink or Flesh color

White + any color = Lighter tint of that color

Brown or Black + any color = Darker shades of that color

TO LIGHTEN:

Yellow + Lighter Yellow or White
 Orange + Lighter Yellow or White
 Red + Lighter Red or White
 Violet + Lighter Blue, Red, or White
 Green + Lighter Green or White
 Black + Lighter Gray or White

TO DARKEN:

Yellow + Deeper Yellow or Violet *
 Orange + Deeper Orange or Blue *
 Red + Deeper Red or Green *
 Violet + Deeper Violet, Blue, or Red
 Blue + Deeper Blue
 Green + Deeper Green or Red *

PRIMARY, SECONDARY & TERTIARY COLORS

PRIMARY COLORS: The primaries are blue, red, and yellow. These three colors are impossible to produce by mixing other colors. To create a secondary color, mix two primaries - blue and red to make violet, blue and yellow to make green, red and yellow to make orange, and so on. The six tertiary colors are blue-green, yellow-green, blue-violet, red-violet, red-orange, and yellow-orange. The tertiary colors are created by mixing a primary and a secondary color. Red and orange produce red-orange, yellow and orange produce yellow-orange, etc. You can also produce tertiary colors by mixing uneven amounts of two primaries. A lot of red and a little yellow will make red-orange. A lot of blue and a little yellow will make blue-green, and so forth.

COMPLEMENTARY COLORS: The colors that are opposite one another on the color wheel (see cover) are called complementary colors or just complements. Blue and orange are complements. Blue-violet and yellow-orange are complements. Violet and yellow are complements.

IMPORTANT DISCLAIMER

Products purchased from Sculpt Nouveau are warranted “Free From Manufacturing Defects” only to the extent of replacing defective materials. Sculpt Nouveau believes these products may be used under conditions which we have no control, or in ways we cannot anticipate. Therefore, we give no warranty, either expressed or implied, and assume no responsibility for any damages to persons or property or business arising from such use. Moreover, it is the responsibility of the purchaser or user of these products to ensure they are properly and safely used.

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Solvent Dyes
By Ron Young

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