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HOW TO DESIGN AND APPLY AUTOMOTIVE AND MOTORCYCLE PAINT AND GRAPHICS

FLAMES, PINSTRIPE, AIRBRUSHING, LETTERING, TROUBLESHOOTING & MORE



Written by subject-matter experts and illustrated with step-by-step images, the Motorbooks Workshop series is the ultimate resource for how-to know-how.

JoAnn Bortles

HOW TO DESIGN AND APPLY AUTOMOTIVE AND MOTORCYCLE PAINT AND GRAPHICS

Dedication

This book is dedicated to all the old custom painters who broke the trail for those who followed. The painters and artists who have spent so many nights in the shop, only to watch the sun come up in the morning and know that the clock is ticking. Knowing I'm not alone is what keeps me going on those nights.

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Introduction

Reality Check!

I seldom read the introduction in How To books. I skip right to the chapters that explain the techniques I need. So, I'll keep this short. I've been doing custom painting for forty-two years. And I have learned some brutal hard lessons. I've seen countless hours of hard work and many dollars' worth of materials turn to ruin and become worthless because I took a shortcut, wasn't paying attention, or broke a painting rule that I knew not to break and broke it anyway. All of those hard years seemed like a waste of time until I had the opportunity to write these books and pass on the lessons I had learned.

But the journey of writing the first seven books was also a learning experience, and in the almost twenty years since I wrote *How to Custom Paint Your Motorcycle*, I've grown as a writer. For two years, I wrote for *Car Craft* magazine and the editor, Johnny Hunkins, did not cut me one bit of slack. He cracked on me as if I turned in the worst thing ever written and it only made me want to improve as a writer. And I worked hard to improve until he praised each article I turned in. It made me a much better writer. If you've read my other books, you'll see that this one is much better than the older

ones. Much in the same way, I have always tried to improve as a custom painter. Instead of giving up or feeling bad when criticized, I just try again. And with each paint job, I try to do a better job. The flames I paint tomorrow will be better than the flames I paint today.

The road of custom painting is not an easy one. Things are going to go horribly wrong, and you might get discouraged. But know this, every awful thing that happens as you're painting has happened to the very best painters. And the reason you know their names is that instead of giving up, they went back into the shop and tried again.

Expect things to go wrong, and when they do, don't be too hard on yourself. Don't give up or get an attitude. Take a break. Maybe even close up the garage or shop for the day. Relax and get some rest. It's not the end of the world, even if it feels that way. *There's always another car or bike show.* Then go back with a fresh set of eyes and solve the problem. Do research, talk to other painters. This is a part of every custom painter's journey. Now get in the shop and paint! Good luck with all your painting projects!



Chapter 1

Designing and Testing Your Paint Job

Custom paint offers the greatest freedom to make your vehicle unique. No two customizers are likely to arrive at the same concept. Even if they did, limitless differences in colors, finishes, and personal artistic style ensure that each machine would be distinct, unlike every other ride on the planet.

THE JOB OF CUSTOM PAINT

Like clothing on a person, custom paint can enhance or downplay certain aspects of a vehicle's shape. Be thoughtful when picking colors and designs. Bright colors on a bulky or bulbous vehicle will accentuate the roundness. Darker shades can make a broad vehicle

appear more slender. The lines in your design can have a similar effect. Artwork with vertical elements will stop the eye as it moves over the surface of the car or motorcycle. Horizontal designs will draw the eye across the length of it.

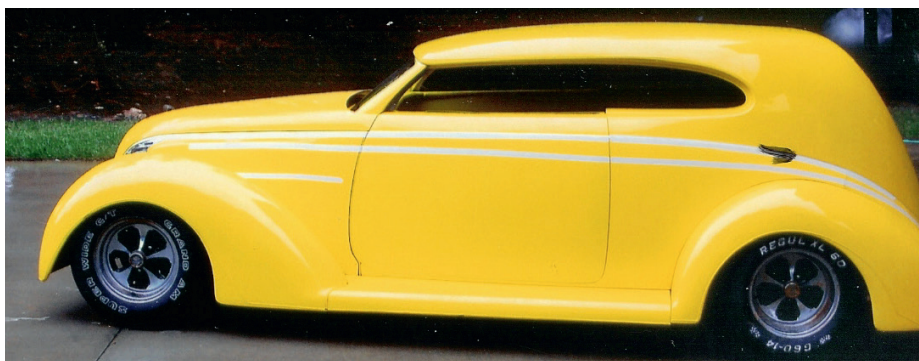
Stand back and look at your project. Just what do you want to accomplish? Are you looking for sleek and subtle? Want to make that car or bike look like it is a mile long? Or maybe you want the vehicle to shout out, "Hey! Look at me!"

To begin, let's go over a few rules for newcomers, including some risks to avoid. There are numerous potential mistakes that are guaranteed to create a painting disaster and nightmare stress.



Effective color and design will bring out the best features on a vehicle and compliment them. The flames on this fender were designed to accent and emphasize the point on the front of it.

The 1939 Ford is a classic, but the back end of the car appears fatter than the front. Could custom paint give the car a more symmetric look?



Is this the same '39 Ford? Yes, it is, and it won PPG's Top 5 Most Outstanding Paint of 2006 award. It was also featured in *Street Rod Builder* and it appeared in several other car magazines. How was this accomplished? Look at the previous photo. The rear end of the car is so round and big that it overpowers the front half. The front needed something to bring it out. The back half needed to be deemphasized. As black is "slenderizing," the car was painted black, and the artwork was limited to the front portion of the vehicle. The brightness of the real fire flames gives more balance to the car's body style.

ADVICE FOR FIRST-TIME PAINTERS

- 1) Knowledge is power! Even custom painters with years of experience will admit that they are always learning something new. Be curious and soak up all the knowledge you can. Go to car and bike shows and take plenty of pictures. See a car with a cool color on it at a car show? Ask the owner who painted it and what kind of paint it is. Look closely. How is it holding up?
- 2) Enthusiasm and expertise are not the same. Beware of information from fans or celebrities who are not custom painters. They may offer opinions from what brand of paint to use, as in "Real painters only use Triple X Paint!," to what kind of artwork you should do—"Oh, flames are so last year. No one's painting flames on their cars this year." Make your own



The first paint I ever did. It was simple. The gold base color was the perfect choice. Don't over-complicate your first paint jobs. Keep it simple. Use interesting colors to give them impact.

I had a short amount of time to get this paint completed on NBC's *Today Show* chopper. I used the most outrageous color paint, Crystal Orange Pearl Candy. Note how the color emphasizes the lines and style of the bike. This is what is meant by effective use of color and design to suit the style of the vehicle.



decisions. Listen to people with real world experience. Custom painting has a long history, and this year's fads may have no importance for a vehicle you might keep for years or decades.

3) Shut out distractions and protect your creative space. Even when you know what you want to do, there will be many creative decisions throughout the process. Give yourself the time and space to make them. Don't let anyone get under your skin about how you should do your paint work or how quickly. Put your full focus on your project and enjoy the journey! And don't hesitate to shut out the world. Turn off the phone and turn on some music. Too often a painter will be on a roll, turning paint into art, and the phone rings. The concentration is broken and it's often hard to get back into that happy place that makes the experience so worthwhile and satisfying.

4) And one more thing about time deadlines and paint. Paint is the last step in the custom process. The builder or fabricator had all the necessary time to do that job. The engine builder had plenty of time to put together a sweet powerplant. Then there was the whole getting the parts thing. Body panels were aligned and assembled on the car until all the gaps were perfect. So why, in the final stage, should you

rush the MOST noticeable part of your project? Whether painting for yourself or painting for a client, don't rush! Be realistic about deadlines and be ready to explain the reasons if the deadline needs to be changed.

WHAT MAKES AN EFFECTIVE PAINT JOB?

Custom paint's contribution to a vehicle is powerful, but subtle. Its effects lie outside the quantifiable aspects that people love to tout, such as displacement, horsepower, torque, acceleration, and top speed. Most of the time when people look at vehicles with cool paint, they simply appreciate the way it looks. They don't think about what exactly makes it so cool, what makes it "work." Many different things come into play to make a custom paint job effective. The key is to consider the project as a whole and to find the right combination of color and design that will bring out the vehicle's best features.

HOW A DESIGN WORKS

By drawing viewers' eyes toward or away from certain regions, paint design can be used to "alter" a car or motorcycle's shape. Use paint design to enhance or bring out various features of your project. Look at these examples of how paint design changes how a vehicle is perceived.



King-style sportster tanks have a fat, short look. Can design give it a sleeker look? This king tank was painted with a special tangerine candy pearl mixture. A dark color would tend to “slim” down the tank. But the hot, bright tone of the orange has a glow to it and “thickens” the tank.



I really wanted to deemphasize the “fatness” of the tank, using flames to make it appear long and leaner—not just a “squat bean” sitting on top of a motorcycle frame. I did the flames in variegated gold leaf. The tank color looks great with the gold flames. The flames look good. But it feels like something is missing . . .



Wow, what a difference a pinstripping makes. The striping does numerous things. It creates a clean separation between the gold and orange, creates contrast, and compliments both colors. But what it really does is add length to the flames. The pinstriped tips only extend maybe 1–1½ inches past the gold, but that makes all the difference. And that gives the tank a longer, sleeker look.



Splitting the profile of a vehicle with a two-tone is very simple but can completely change the look of the vehicle's shape. Compare this photo with the next one.



I've used Photoshop to make the bottom half of the car appear to be a simple purple like the top half. Does the car look shorter? The orange in the previous photo is bright and gives the car the illusion of being longer.

ARTWORK VS. SOLID COLOR



This Ford 1932 Hi-Boy looks very cool painted this fiery tone of red. What kind of difference or effect would artwork have on it?



Here's a Hi-Boy with black flames and a wicked killer rainbow fade basecoat. Now these cars are the same length, but the flamed car looks longer. The area under the trim line along the bottom of the car has been painted black and disappears. That, plus the flames, narrows the body of the car and accentuates the length of the car. The fade also helps this lengthening effect. The brightness on the front of the car makes the surface look bigger, farther away from the dark colors on the rear. Flames by Wade Hughes.



Now check out the graphics on a 1932 Ford Coupe. Besides the fact that this is a very well thought out and flawlessly executed custom paint job, it is very unique. The white side panels, narrowed by green above and below and accented with flamelike green stripes stretching and tapering front to back, draw the eye along the car's length, making it look longer.



Compare this altered photo to the previous picture. The car looks shorter than the other, yet it's the exact same photo.



I like for the bikes I paint to have a long, lean look. When the customer wanted yellow for this bike, I knew it would be a challenge to find the right color for the artwork. Yellow is a glow color and makes a vehicle look bigger, but in all directions, not just the length.



This black and white gear design slashes across the tank. The black and white has a touch of blue, and the colors are very cool yet work great with the yellow. The angle of the design makes the most of the downward curve of the front of the tank. It slims down the tank, and the gears make the paint interesting. The paint goes from bland to sleek and intricate.

WHAT IS AN EFFECTIVE DESIGN?

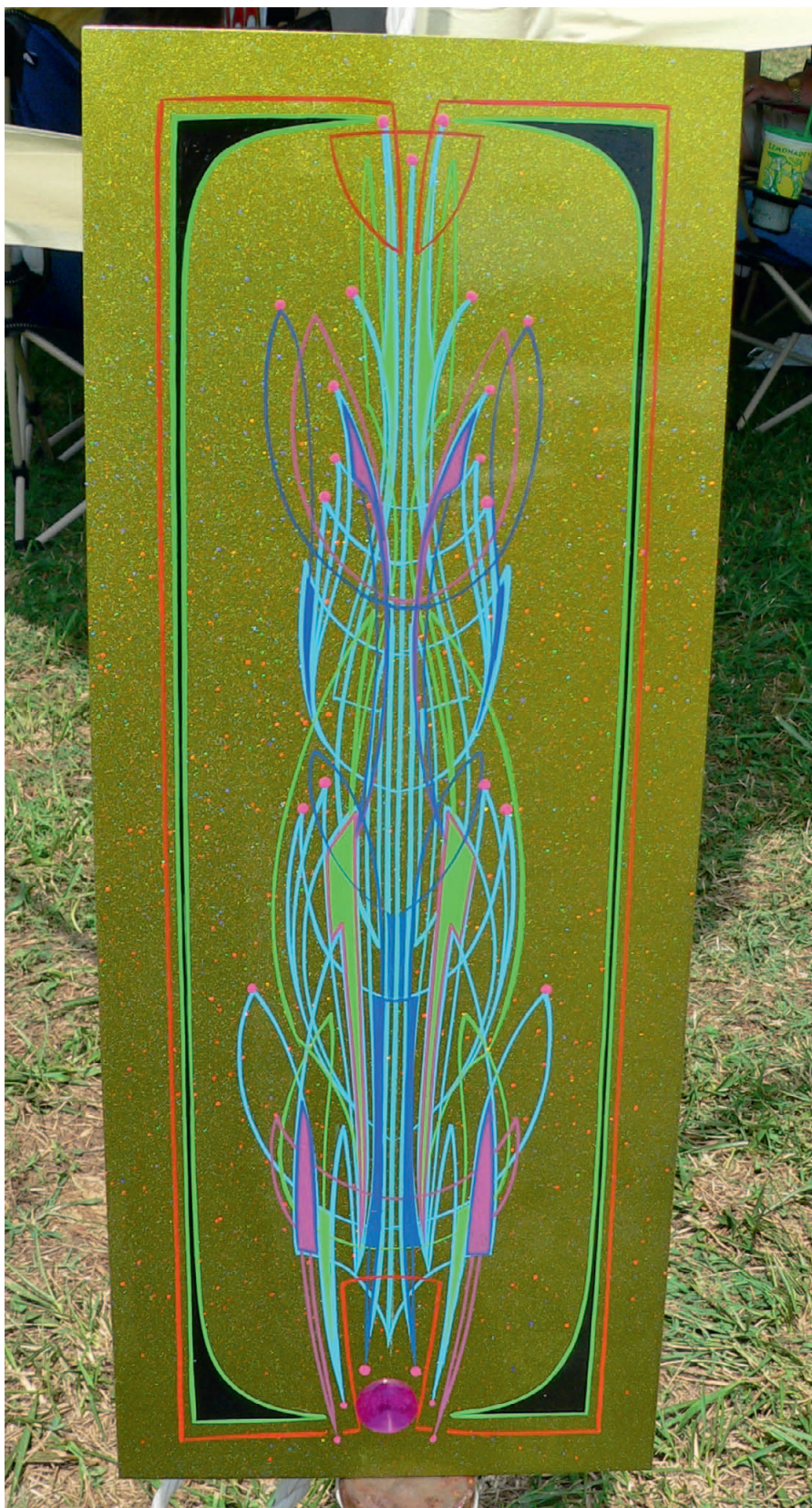


A customer sent me this tank with his old paint job still on it. The round design and muted colors didn't visually transform.



They say black is slenderizing. What is true for fashion is sometimes true for custom paint. The artwork cuts the tank in half, giving the illusion of more length. The black frames the red, creating contrast, and in turn making the red look brighter. The line design is limited to the middle of the tank. It is more than just a straight line but is not overly complex. There is only one really curved line. The rest are nearly straight.

PLAY WITH COLOR



This pinstriped panel has many colors on it, and it looks amazing. But look closely at the basecoat color. It's an odd kind of a green gold, but it looks perfect with the stripe tones. Don't discount offbeat colors. Don't settle for colors that everyone else is using. Try something new. Panel by Jim Norris.

TEST YOUR PAINT AND TECHNIQUES

It's so important to create spray-out cards and test panels for colors and design. Never use your project as the testing ground. Test your color and your technique

on panels and spare pieces. Once you're satisfied with the results or your client approves them, spray it on your project.



Here are three different examples of purple pearl. One is redder, another is bluer, and one is in between. Explore your color possibilities. Never trust what you see in the mixing cup. Spray it out, let it dry, and apply clearcoat. It is the only true way to judge a color.



These are just a few of the many color test samples and test panels I've painted over the years.

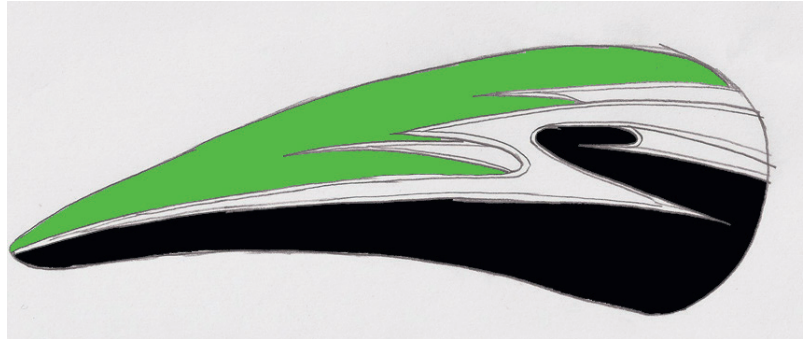
TRYING ON A DESIGN

Every paint job design should start with photos of the car, truck, or motorcycle. The main angle I use is the straight-on side view, which people tend to associate with a vehicle's shape. I'll also take shots of whatever other views will be getting artwork, like the top of the hood or the top of the gas tank. Next, create a "blank" by whiting out

the paint areas using a graphics program or actual white, office-style correction fluid. Then make copies of the blank, and you're ready to sketch out your ideas. Then you can compare the ideas, find the features you like best, and edit your drawings until you have a design that is perfect for your project.



Here's a simple tank design. First, I took a photo of the tank, opened it in Photoshop, and whited out the tank. Next, I drew the design on the tank.



Now to try out the color choices, black and lime green. Here's lime green on the top surface.



Here's black on the top surface. Which one is better?



I went with the green. The green on top gave it a bolder look.

OLD-SCHOOL DESIGN

You don't have to use a computer for your graphic design. You can print out the photo, place a piece of tracing paper over it, and trace the outline of the paint areas of your project and the paint elements of the photo. Next, print out a few copies on your printer. Now use colored pencils or markers to create your design and try out options.

THE JOURNEY OF A PAINT DESIGN



I started with a blank of a Harley Street Glide. The client wanted graphics and skulls.



The first drawing shows how it looks with one layer of graphics backed with the skulls. I start by pasting the skulls into the blank drawing with their own Photoshop layer. Then the graphic layers are added on top with a new layer. This could also be done by hand, drawing the skulls onto a blank, and then creating copies. Then draw the graphics on the copies.



The next drawing shows a second layer of graphics has been added.



One of the graphic layers is lightened up.



How would it look with leaner, thinner graphics?

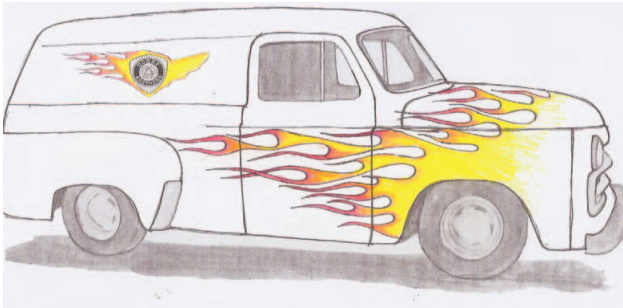


You can see from the tank that the client went with the third option.

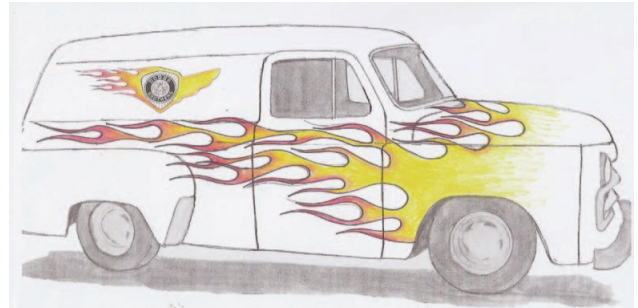
THE JOURNEY OF A PAINT JOB: COLOR AND DESIGN

Chapter 5 features a flamed 1955 Dodge panel truck project. But how did I know what colors would work best? Or how the flame design would best suit the truck?

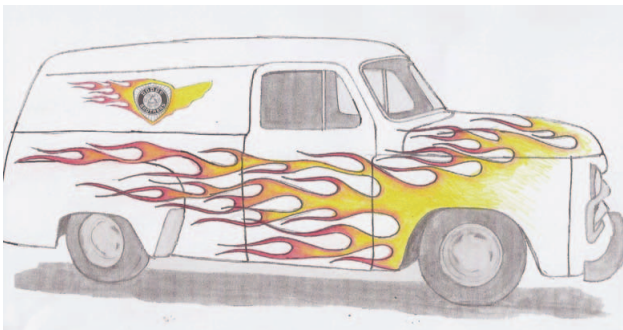
Here's the evolution of that paint's color and design. This showcases actual hand drawing and using a computer graphic program to fill in colors.



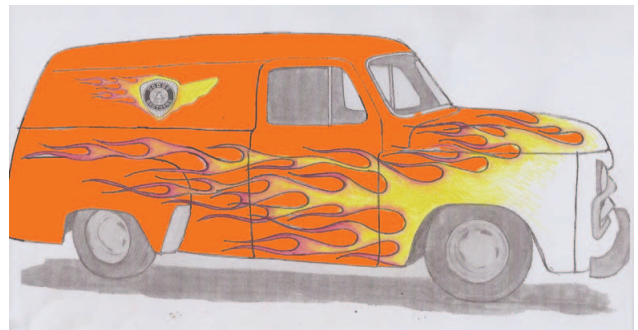
My client didn't know exactly what he wanted at first. But he decided on hot rod flames. I created a blank drawing, made some copies, and started to sketch with colored pencils. The first drawing had a minimal number of flames.



The second drawing had just a little more flames, this time stretching across the entire length of the truck.



And just for fun, I covered the entire side with flames. And that was the one my client chose.



Now to try on a few colors. We didn't want to go with a plain black. Too typical. Does an orange base work for these flames?



The truck is very round and has a "fat" look to it. We wanted to give the truck a little more attitude to match the Hemi motor under the hood. Splitting the truck into a two-tone gives it a leaner, more aggressive look. But it's not striking enough. It needs something more.



Purple goes great with black and gives the truck that aggressive look and sets it apart. Some purple tones are carried into the flames to give the paint design some symmetry. The artwork on the upper sides of the truck is changed to a leaner, sharper design. This flows better with the flames.

USING GRAPHICS PROGRAMS TO RENDER DESIGNS

While other software may meet your needs, Photoshop is an easy-to-use program for creating designs using photos. Many online tutorials explain how to use the

various drawing tools in the program. Many artists use Photoshop to create realistic renderings that make it easy to see how effective the paint job will be.

Photoshop was used to draw the blue fire flames on the car in this photo. If you're learning how to use Photoshop, be patient. Try out the different tools and experiment. For this, I drew out the darker tones using the Pen tool. Then I used a smaller Pen tool setting to draw the lighter parts of the fire. The flames are blended together using the Blur tool. The Erase tool is used to trim away any unwanted blue areas. This can also be done using old tech. Create a white blank, and then use colored pencils to draw out the fire flames. Next, use colored pencils to fill in the basecoat color.



Here are the flames after they were painted on the car.

Chapter 2

Tools and Materials

While it's tempting to flip ahead to get to the “good stuff,” there's essential information in this chapter about the paints and tools you'll be using. We'll cover information like which paint should be used for what, the kinds of paint *not* to use, and problems you might

encounter when using different kinds of paint. The chapter will explain how paint works, how to get the best from the products, and what to look out for to keep paint problems to a minimum. You'll also learn about the tools and other materials used for custom painting.



Good paint isn't just about custom artwork. Good custom painters know how paint works and how to make it work to their advantage. Good paint jobs are only as good as the paint under the artwork. Taking the time to understand the different kinds of paint and using paint correctly is the difference between a successful paint job and weeks in painting hell.

HOW PAINT WORKS

This is a very simplified drawing, but for the most part, this is the quick and simple explanation of how paint works. The paint is sprayed onto a sanded surface. The sanded surface provides a “tooth” to help the paint to stick. The solvents in the paint carry the pigments and resins to the surface; then, as they evaporate out, the layers bond together.

