

Choosing Color

BY DAVID MCDONALD



Deep thoughts behind choosing color — creating the desired response from the public.

About the author: David and Robin McDonald own and operate Avila Sign & Design, a custom sign shop in Grover Beach, Calif. They may be found on the Internet at www.avilasigndesign.com.

CHOOSING YOUR COLORS on a given sign project can sometimes be an overwhelming part of the job, but it is a very important part of the package and can make or break the final outcome of the sign.

I have found myself countless times scratching my head as I tried to make what seemed to be a wonderful design in black and white come together with color. Adding color to a black and white design should, in all cases, help bring the elements to life, making the overall design better, not worse.

But how do we make such decisions rationally? Do you start from scratch by throwing in this color and that color until you think it looks good? And, at what point do you decide it's *right* or finished? Or, is it the customer that generally makes these decisions for you?

I would guess that at least 50 percent of the time (for most of us, anyway) it's up to

you, and that's as it should be. You're the professional.

When someone comes in with pre-designed artwork and colors it lets us as designers off the hook. In these cases we do not have to be responsible for the color choices.

When it is up to you, what are the deciding factors for your color choices? Most would probably answer, "How the color looks," or, "How the colors go together."

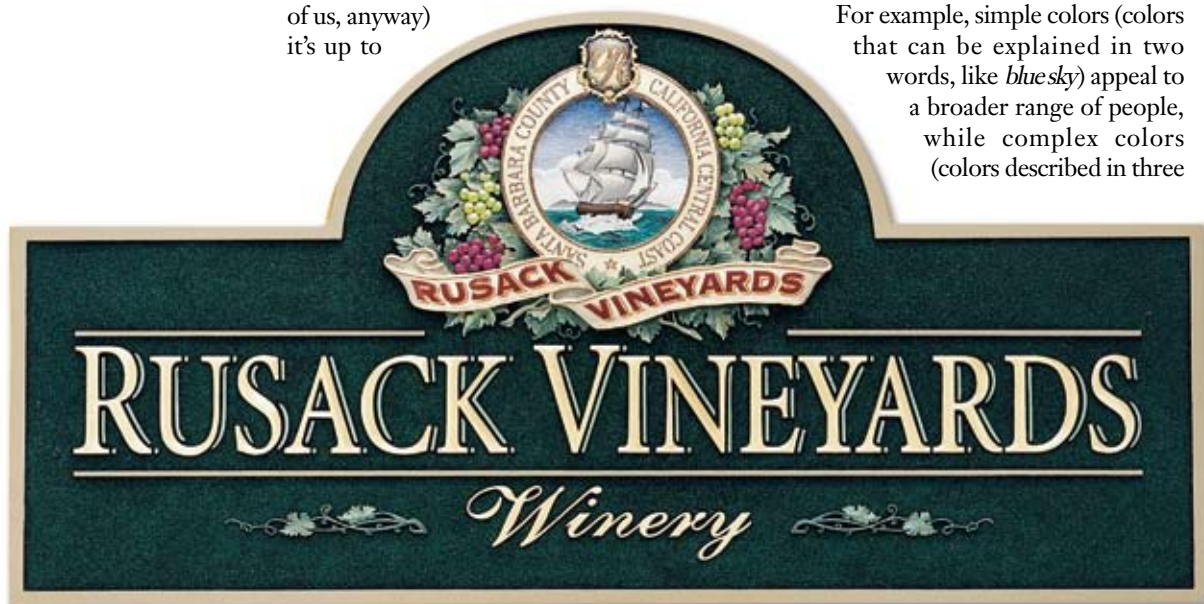
I want my colors to look good too, and I would like them to work together, but I'm not sure what that really means. Do you?

WHAT IT MEANS

Your response to color is inherited, and it is learned. Response depends on several factors, including your sex, age, intelligence, and education. Also, such factors as temperature, climate, socioeconomic background, and regional attitudes will affect color response.

Response to color can be the most important merchandising tool. It can help create the responses you want for your product or that of your customer's.

For example, simple colors (colors that can be explained in two words, like *bluesky*) appeal to a broader range of people, while complex colors (colors described in three



The darker shades of green and blue-green always look and imply "high class". (Note the use of "muddy" or "complex" colors used here for an expensive look).

words or more, and often described as *muddy* or *dirty*) appeal to a more exclusive clientele.

It is the first element a customer responds to when they see a product, because color affects us on an innate, biological level.

Flowers are a certain color to attract the proper insects so that pollination occurs. Insects are specifically colored to ward off attack by birds and other predators.

We have long recognized that the specific colors of many creatures accomplish certain results. The same thing is true in humans. We have just been slow to recognize and use the color responses that are inherent to us.

RESPONSE TO RED

When red fills your vision the pituitary gland goes to work. Your body chemistry is altered. Your blood pressure is increased. Your pulse rate is increased. You breathe at a more rapid rate. All these reactions are automatic; the result of the eye seeing red.

Some studies indicate that things actually taste better to you in this state. The color red could then be said to enhance some flavors. Have you ever noticed that pastries or anything sweet are often served on a pink plate? Or at least on a pink napkin (that's how I like mine!). Pink is a lighter value of red. Go figure!

Value is the lightness or darkness of a color. As an example, the steps in gradation from white to black could be numbered from one to ten (white being 1, middle gray being 5, and black being 10).

The value system of any color is the lightness or darkness of a color numbered from one — the palest tint — up to ten — the darkest shade.

In the case of red, a 1 would be a very pale pink. A 10 would be such a dark burgundy that it might appear black at a distance. As you increase the value of a color beyond six on the value scale, you

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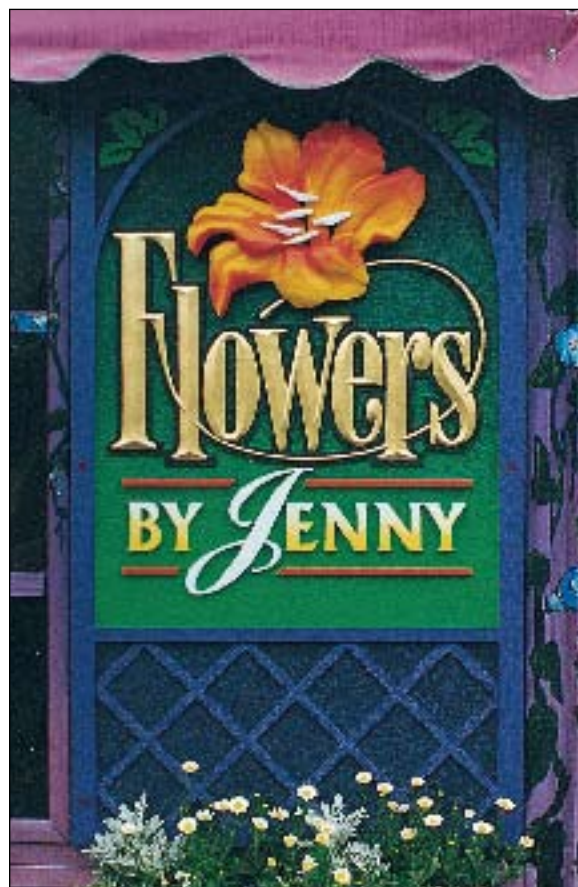
Black, when used with other colors in small amounts, becomes the accent and it is the color next to the black that elicits the response. Black then becomes the neutral.



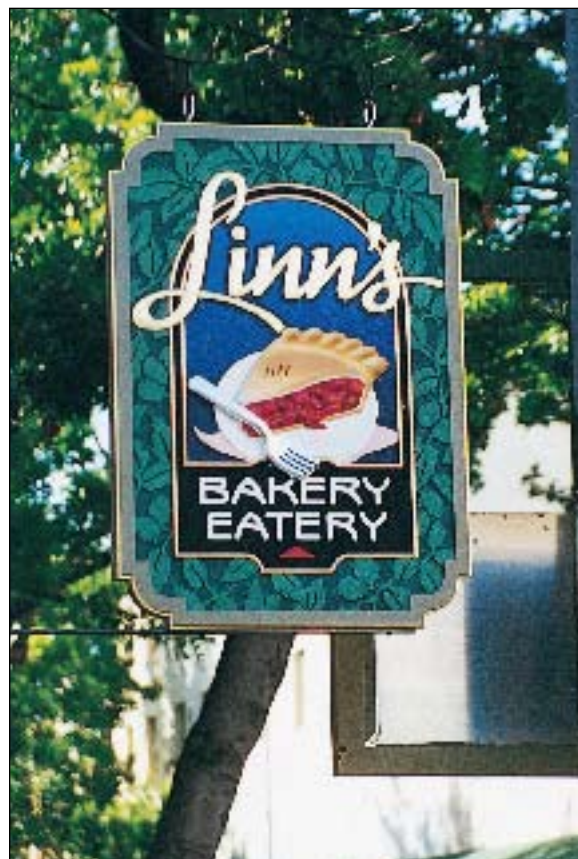
For this residence sign, the clients wanted to identify their property without being offensive to their neighbors. Brown was chosen for its friendly and down-to-earth properties.



For this local fire department sign, I used red in its traditional sense. Red also slows the reader down and makes them take notice.



Adding orange to this sign reduces its classification, allowing all prospective shoppers to feel welcome.



The color blue is not best suited for food, but using it to convey depth or space in this "horizon" effect allows the viewer to accept it. (In this case there was a strong influence of cobalt blue ceramic tile on the restaurant exterior.)

start leaving some groups of people behind in their potential positive response to the color.

In the presence of red, time seems to slow down. Studies have shown that red distorts the perception of the passage of time. Red is very useful for bars, casinos and restaurants because the patrons lose track of how long they have been there (stop signs are red; maybe this is why).

RESPONSE TO ORANGE

Orange is a color that implies *low end*. It is a cheap color, or *declassifying*! Conversely, a *classifying* color is one that holds position or alters appeal so that only a limited number of people will respond positively. A declassifying color is one that moves its position downward and extends appeal to a broader number of people.

When combining orange with any color of dark value (forest green, for example, which would only appeal to a limited number of people — about three percent of the population), orange would declassify the forest green and cause a greater number of people to be positively attracted to the combination. Forest green alone will give the look of an expensive hotel.

With the combination of orange and green you can open up an inexpensive motel. Combine orange with some other colors and you can open up a fast food chain, or a pancake house.

Orange always works the same way. It reduces classification and causes a broader appeal. It indicates informality and little expense.

Orange also has seasonal connotations, from the leaves changing in autumn, to the holidays coming and going. If you want to add respectable value to orange try terra cotta; it is still declassifying, yet tasteful and not cheap.

RESPONSE TO YELLOW

Yellow is probably the most misunderstood color. It has been used by nature in very specific ways, most often as an indicator that something is new. The buds of many flowers are yellow before they change into the color of their full blossom. In the insect world, insects that

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Yellow has some wonderful uses. Take a lesson from nature and use it to call quick attention to something.



This simple sign with attached plastic letters commands respect. It is taken seriously. (Imagine the same sign with a medium blue background.)

can bite you or can sting you are frequently yellow with black markings.

Yellow has been used to indicate that you should notice something for your own good. In fact, some research indicates that you instinctively have a *pulling back* reaction to things that are yellow and black to avoid the sting you anticipate. Yellow is the *fastest* color for your eyes to see.

In merchandizing it is the most likely color to get quick attention. Use it when you want to stop traffic. Yellow works the same as orange when it comes to declassifying another color. Yellow never classifies.

Since yellow connotes things that are temporary, how wise is it for a bank to use yellow? How many people are interested in putting their money and valuables in a temporary bank? It's the wrong color signal for long-term use or success. It may look good but the response is wrong.

In our society, the use of yellow in its *temporary* sense can be seen with rental cars, taxi cabs, riding a bus (temporary ride), and of course all of the caution and safety signs we encounter on a daily basis.

Yellow has some wonderful uses. Take a lesson from nature and use it as an

indicator to call quick attention to something.

RESPONSE TO BLUE

Blue is the most stated color preference of most Americans. In fact, 80 percent of people questioned state that blue is their favorite color.

But, a *stated* preference is not an *actual* preference. A stated preference is something you say. It may or may not have to do with an actual color decision, a color that you buy, or a color that you would choose to paint your house with.

According to the Wagner Institute for Color Research, blue has an interesting history. In the year 431 Mary, mother of Jesus, was elevated to Queen of Heaven by the Catholic Church, and was illustrated wearing blue.

The choice of using a beautiful, intense blue probably was made because the color was so very precious. It was made from grinding lapis-lazuli, and cost as much as gold. A color as precious and costly as this was certainly a fitting color for the Queen of Heaven.

Through the years Mary was repeatedly illustrated in blue, again because it was so costly. The color eventually became available from other pigment

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sources far less costly, but by then it had become her color.

Mary's properties became the properties of the color blue. This is a learned response, and a reaction that people have learned in Western society.

So, if you want the properties of responsibility, knowledge, trustworthiness, caring and many other positive properties, you can show the color that symbolizes these properties — royal blue.

It is a good bet that the law enforcement in your town wears a blue uniform. Dark blue is an excellent choice for the attorney, accountant, and city government.

A very pale blue seems to encourage fantasy and flights of fancy. This may be a learned reaction because of our association with the sky, since the sky presents many opportunities for imagining things.

Because of their calming properties, the lighter shades of blue can be useful in hospitals, dentist's offices, or the background of a pre-school sign.

Blue is probably the worst color choice for food. You don't eat blue and you generally don't drink blue either (we're talking about true-blue not blueberry). There is no blue food in nature. Imagine blue spaghetti or blue mashed potatoes.

RESPONSE TO GREEN

Is it any wonder that the response to green is generally a favorable one? Recreational uses of green will always be a winner, because outdoor recreation is such a positive experience!

Green is great around food; a nice choice for that restaurant sign. But, green is not good for all food. It has been found that it does not enhance the body's experience of sweet foods.

In fact, sweet foods will be given a lower value in a green environment than any other color, so stay away from this one on that bakery sign.

In the values of say, 7, 8 and 9, the blue-greens have been one of the most successful color symbols. People associate prestige with the dark blue-greens (currency). It has been a successful logo color for Daimler-Benz, Security Pacific Bank, and many other highly respected and successful companies.

RESPONSE TO BROWN

Brown is one of the colors with a very wide range of positive responses. It is a color we can put to good use, from the light values such as camel, to the darker values like deep mahogany. We eat brown. We drink brown. A broiled steak, a cup of coffee, a chocolate bar; the list goes on and on. Brown is a very tasty color.

You also eat well off of brown plates, on a brown table. The restaurant sign can be brown and using brown for the menu board is a perfect choice.

Brown works well in many food situations but not in all. If you were designing a label for a can of baked beans, brown would receive good response, but would not be the best choice for a can of peas. It requires natural association for a positive response.

If brown moves to the yellow side, the responses will not be as positive. The more yellow you add to brown the more negative responses you will get.

RESPONSE TO GRAY

For every color viewed the eye sees an after-image. The complementary color is created by the eye's own chemistry and is seen during the eye's compensation or recovery time.

Therefore, if you ever want to know what the complementary color is just stare at the color for a minute and then stare at something white. The color you see superimposed on the white is the complement of the color you were staring at.

There is only one exception to this. The eye sees no after-image after looking at gray. In this definition it is therefore the simplest of all colors for the eye to process.

People are more creative in a gray environment than any other color tested. But, if you've lived for any time in certain climates you may have had negative experiences with gray. You planned a picnic for your birthday and

it clouded over and it rained!

Many other experiences associated with gray and with disappointment can lead to a strong prejudice against gray. Hence the color has developed regional prejudices. So it may not be a good idea to use gray in the Midwest, but out here in sunny California (when El Nino's not around) it can be used positively.


Gray is an excellent color for both men and women in business. Other than navy blue, there probably is no other color that is better suited for business wear.

RESPONSE TO BLACK & WHITE

We have many terms supporting a negative response to black. Black, as opposed to white, has *nether world* connotations. We have black magic, the black plague, and many references to black that are sinister.

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On signage, when black is used with white we achieve the most contrast available for readability. Black is also the color for dignity, sophistication, refinement and authority.

Black is used for the most formal of occasions and we find it as a color in the everyday work place. It is a color of great diversity.

Black is powerful. When it comes to making a power statement in personal clothing, black is unequalled, used with its opposite white, black makes a statement of great authority requiring the utmost respect.

Black, when used with other colors in small amounts, becomes the accent and it is the color next to the black that elicits the response. Black then becomes the neutral.

White is a color for which there are many positive responses. History has given numerous examples of the positive connotations of white, like the white

knight, and the cowboy wearing the white hat.

White indicates delicacy and refinement. White was and is the symbol for purity, chastity, and cleanliness.

Pure white was an indicator that you had sufficient status to afford it; white was an indicator that you had staff to keep your linens clean.

White can be used with every other color and will look good. But, remember that looking good is secondary to the response. A black car may be very beautiful but a black airplane looks suspect (will it fly?). That's why, when it comes to flying, we think of *lighter* colors associated with flight, like white and silver. But, we've learned that black cars have dignity (limousines).

COLOR REFERENCE

The reference material discussed in this writing was compiled from the research by Carlton Wagner, a prominent

West Coast designer and practicing clinical psychologist who founded the Wagner Institute for Color Research.

I was privileged enough to attend one of the seminars that he offers. For me, the information helped answer questions about color that can be critical in merchandising and sales. I hope you can use this information to choose color. Good luck!

For more information about the Institute for Color Research you can write:

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Forming Foam

BY DAVID MCDONALD



Techniques for carving, shaping and beveling high-density urethane — adding value to a dimensional sign.

About the author: David and Robin McDonald own and operate Avila Sign & Design, a custom sign shop in Grover Beach, Calif. They may be found on the Internet at www.avilasigndesign.com.

I HAVE BEEN ASKED on several occasions about which methods I use for carving high-density urethane (HDU). I have found that the traditional techniques used for carving materials such as wood and other hard materials will slow you down when working with HDU.

When carving wood and other materials with a lot of grain structure it has been acknowledged that you should make a series of small cuts, working parallel to the stroke of the letter. Conversely, I have found that with HDU it is much more efficient to make long, slicing cuts, running the length of the letter and taking off more material with each stroke; it is really more like sculpting than carving.

Of course, the better your tools are the more efficient you can work, but don't let that stop you from carving. All you will need is a standard wood chisel and some fine sandpaper to sharpen your edge and you will be on your way.

THE SHARPER THE BETTER

A sharp chisel is very important for carving; most sign shops stock an assort-

ment of sandpaper that can be used to sharpen the edge of a chisel.

I use 320-grit sandpaper, which I adhere to a piece of glass using some spray adhesive. If you don't have a piece of glass handy then any flat-and-smooth surface will work.

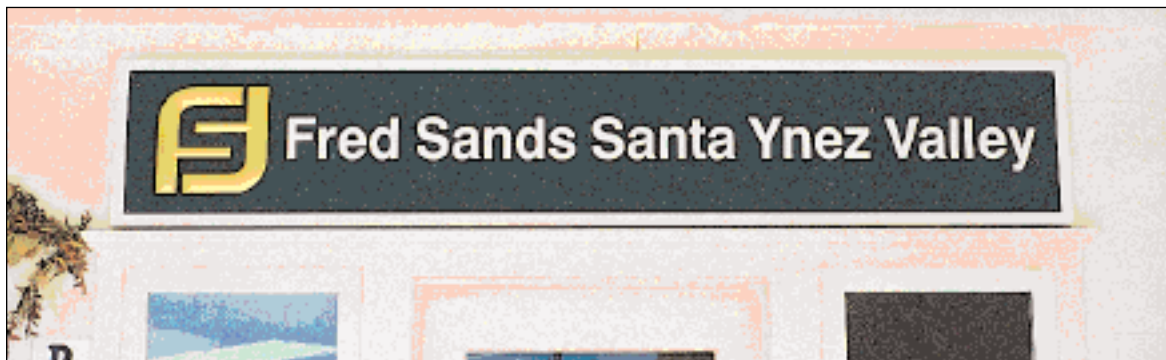
While holding the chisel in one hand use the forefinger and middle finger of the opposite hand to apply moderate pressure of the chisel to the sandpaper. Note how I have the smooth side of the chisel facing up, allowing only the cutting angle to make contact with the paper (see **Figure 1**).

Make a series of strokes — as you would while carving — keeping the handle of the chisel at a constant height. This will keep the integrity of the cutting angle and help the chisel develop a good edge.

After a few strokes, turn the chisel over to examine your progress. You should see a shiny spot where the sharpening has taken place. If the angle doesn't look correct adjust the height of the stroke, then re-check.

Next, turn the chisel over (flat side down), and with the same grip as discussed earlier lay the chisel flat on the sandpaper, making sure the handle is hanging over the edge of the table so that it won't get in the way. Now you can remove any burrs that have developed from the first sanding process.

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Beveling and shaping lettering adds value and interest to any dimensional sign.



Figure 1: Making a few passes across some fine sandpaper with your chisel will give you the edge needed for carving HDU.



Figure 2: Remove any burrs developed from the sharpening process by turning the chisel over, laying it flat and making a couple of passes.



Figure 3: This basic sandblasted logo is saying, "Carve me!" Listen closely... Can you hear it?



Figure 4: Remove small amounts of material with long fluid strokes, stopping at the corner.



Figure 5: Set yourself up for a final stroke to clean things up nicely and make for very little sanding.

With the chisel perfectly flat, make a forward cutting stroke (see **Figure 2**). A couple of these strokes should remove the burrs. You should repeat these processes until you are satisfied with a clean, sharp edge.

HANDS-ON

How you hold the chisel is important. Fortunately you have already acquired some practice by sharpening in the previous steps.

I carve HDU with the flat side of the chisel facing me. This might seem a little unorthodox to some but it works great for slicing and sculpting HDU.

I'm left handed, so for you right handers out there just reverse things to apply to you. I hold the chisel with my left hand, which controls the depth of the slice. If I raise the handle while making a slicing cut the cutting edge will want to dive in deeper, taking off more material. Whereas if I lower the handle while making a cut I will take off much less material, just skimming the surface.

When you are just starting out it is a good idea to take off a small amount on each slice until you get the hang of it. It requires a very sharp chisel and some practice to be able to remove a lot of material in one pass.

The left hand is also used for pushing the stroke, forcing the tool through the material and controlling the speed at which you proceed with each cut. The left hand also controls the angle of the beveled edge.

The right hand works as a guide by putting pressure on the flat side of the chisel close to the cutting edge with the forefinger and middle finger. Quite often I find myself pinching the chisel with the thumb and forefinger of the right hand; this will give you more control on the shorter strokes. The balance between the left and right hands allows for a fluid action and a smooth stroke.

THE BEVELED EDGE

Carving a beveled edge into an otherwise flat surface can help add more dimension and interest to your work. When working with gold leaf and other reflective media, a beveled or contoured surface will jump from the sign more

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Figure 6: At a 45-degree angle push the stroke away from the inside corner, keeping the edge of the chisel running along the mitered joint.



Figure 7: Finish the corner by removing the remaining material. Note the chisel placement where the horizontal and vertical strokes meet.



Figure 8: When making turns, pivot from the elbow and shoulder.



Figure 9: Negotiate turns with long, fluid strokes.



Figure 10: On short inside turns, sweep around with the left elbow using less pressure with the right hand. This will help to keep the tool from binding as you slice.



Figure 11: I finish on the end strokes; make a few passing strokes until you achieve a nice mitered joint. It's that simple!

dramatically, reflecting from all angles viewed.

For this writing we will be carving a beveled edge onto a logo that was sand-blasted into HDU (see **Figure 3**). This logo will be a good illustration, because it employs a straight cut, round cut, inside corners and outside corners — all of the basic carving strokes that will get most jobs out the door.

In the beginning you may want to draw in the lines where the chisel will stop removing material; this will give you a place to cut to. The degree of angle at which you cut is not critical. I usually cut at about 30 degrees, give or take.

Where you start when carving a sign such as this is really a matter of preference. I like to start at an outside corner, working my way in.

On the first stroke you want to take off very little material (see **Figure 4**), stopping the cut at the corner. The idea is to remove a little material with each stroke. Taking off too much material at once will cause a very rough surface. Set



Figure 12: The finished logo prior to sanding.

yourself up for a final stroke to clean things up nicely, which makes for very little sanding (see **Figure 5**).

CARVING A CORNER

After finishing the vertical and horizontal straight cuts you will find yourself with an inside corner. This cut need not be intimidating.

Start with the outside edge of the chisel in the corner (see **Figure 6**). Your left hand should be aiming the chisel at a 45-degree angle, like the miter joint of a picture frame.

Cut toward the existing horizontal bevel, keeping the angle of the cutting edge the same as before. This can be done in a couple of passes.

The stroke that finishes the inside corner is done the same way as the horizontal stroke, keeping the outside edge of the chisel running along the 45-degree miter toward the vertical bevel (see **Figure 7**).

You will get a much smoother cut if you approach the material at more of an angle, with the front edge of the chisel. To better illustrate, imagine a snowplow on the front of a truck set on an angle. As the truck moves forward the material is pushed to the side. I am still using the same technique as before, removing small amounts of urethane on each pass (see **Figure 8** and **Figure 9**).

All turning is done from the shoulder and elbow of the left hand (which holds the handle). Keeping the wrist locked, you can pivot from the shoulder and elbow to negotiate around the turn. Try to make the stroke in one pass as you carve around the turn.

On short inside turns, sweep around with the left elbow using less pressure with the right hand, this will keep the tool from binding as you slice (see **Figure 10**).

The easiest stroke to accomplish here is the finishing cuts that cross at 90 degrees from either two parallel, or two

vertical cuts (see **Figure 11**). Make a few passes here until you achieve a nice mitered end. It's that simple, and here's a shot of the finished work with no sanding (see **Figure 12**).

When you're just beginning your finished piece might not look as smooth as you would like. Here are a few tips to help you achieve a nice looking piece...

After finishing, some sanding may be in order. I use 220-grit sandpaper. A couple of long sweeps with the abrasive paper will usually be all that is needed for each stroke.

Cut short sections of standard gallon-type paint stir sticks to various lengths (2", 3", 6"), adhere 220-grit sandpaper with some spray adhesive, and use these little tools as block planes to remove erratic areas on your straight cuts. Sanding sponges can be handy for cleaning up rounded areas (3M makes a nice thin sponge). Good luck! SB



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