PHOTOGRAPHS BY KURT HERTZOG

Adding colour to your turnings

Kurt Hertzog moves on to the subject of adding colour to your turnings and here, covers two different methods for doing so

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Much like a colour photo is different, and many times better, than a black-and-white photo of the same subject, adding colour to your turnings can open new possibilities for your creativity. There are so many ways to add colour to your turnings that books could be written about them. Over time, we'll explore many of them from milk paint to additives in your finishes. Let's begin with two of the simplest yet most powerful methods I know of. In this issue, we'll cover 'over painting' and alcohol soluble dyes.

Safety

The use of any chemical whether finish, paint or cleaner, always requires proper care. Plenty of ventilation in the area is always recommended with chemical use. The use of an activated charcoal filter mask might be necessary, depending on the chemicals you are using, particularly if you are using spray paints. Of course, using safety glasses or a face shield along with protective gloves is a given. Always read, understand and heed the manufacturer's safety recommendations for your long-term well being.

Simple shapes let pretty wood speak for itself. Bland and boring wood can become canvas for your colours and creativity

When to add colour

As a turner, you usually have one of two things to choose from to feature in your turning. If the wood is stunning, you can keep your shape simple yet pleasing and let the wood speak for itself. If you have relatively plain wood, you can create added interest by your shape and more exotic turning execution. With the addition of colour, your plain wood can be enhanced as well as your chosen shape and detail. Colour can help overcome the plainness of your material along with letting you create another art form. Simply put, your turning becomes the canvas for your additional artistic expression.

Adding colour can create more interest on the plain jane woods with little or no figure to speak of

Alcohol dye colouring

One method of colouring wood is to impregnate the open pores with dye colours. One type is alcohol soluble dyes. Understanding the wide selection of dyes, their solubility and colourfastness issues is a huge undertaking. You can select your individual dye colours and create your own method for application if you wish. It is a very workable solution if you wish the flexibility it affords but it does take time and effort. If you want to get into using alcohol dyes in the easiest and fastest manner, visit your local art store. Buy an assortment of Prismacolor alcohol dye markers or Faber Castell Pitt markers. Both of these are international brands and should be available locally. You may have other brand choices, depending on your location and merchant. I use and recommend those two particular brands based on my experience with their quality and colourfastness. Be certain that other brand choices you might select are in the same quality category. Regardless of brand, alcohol dye markers are a bit pricey. They can often be purchased in different sized colour assortment packages, making them a bit more affordable. My local art store often has a 40% discount coupon that can be used. At whatever price, if kept tightly capped whenever not in use, they will last for a long time. Other than premature drying failure, they will provide plenty of service to you in your colouring. Even the dried markers can sometimes be rejuvenated with the addition of denatured alcohol – methylated spirits.

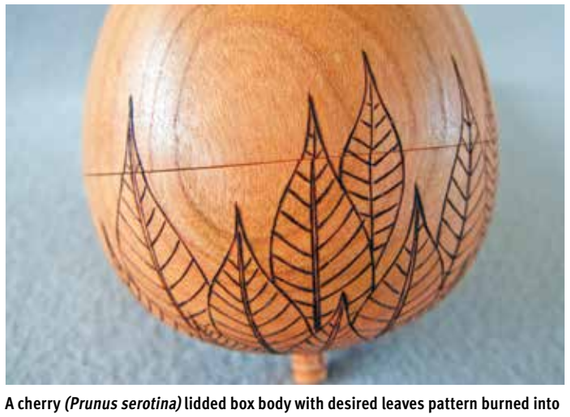
Using alcohol dye markers

The Prismacolor alcohol dye markers are available in a wide range of colours so selecting wide or narrow ranges is possible

The range of control is at your fingertips. Additions of plain denatured alcohol or blending with other colours allows for maximum flexibility

I find the best colouration result occurs when used on finely sanded bare wood. I complete my turning and then sand to the desired level for application of my final finish. Rather than applying my finish at this point, I use the alcohol dye markers to apply my colouring. The Prismacolor markers that I use offer two styles of tip: there is a broad flat applicator at one end and a fine tip, pointed applicator at the other end. Depending on the area to be covered and neatness demanded by your application, you can choose the most appropriate point to work with. The colour intensity builds with the application so you can increase the intensity by repeated application in the same area. The dye is carried to the wood and wicks into the pores. Once the alcohol flashes off, the dye colour is left behind. Because the pores of the wood will vary, the colouration will be similar but not identical. Of course, the species of wood along with any grain changes will impact the absorption of the dye. The dye will 'bleed' throughout the grain and take on a final colour based on the colour you've used in combination with the colour of the wood. The blander and lighter coloured the wood, the more likely your chosen colour dye will dominate. The Faber Castell Pitt markers have a single end but offer a tapered brush type of applicator. Just like in art class, your colour choices and designs are totally up to you. You can be as plain or artsy as you desire. The beauty of alcohol dyes is that you can create whatever colour you want. Your knowledge of the colour wheel will let you 'mix' colours as needed. Apply your first colour and then apply the proper other colour to create your desired colour. For example, you can apply red and then apply yellow over the top of it to create an orange if the orange in the kit doesn't meet with your approval. To lighten any colour as well as attempt to erase errors, just add plain alcohol or a chosen lighter colour. For erasing or simple lightening of the colour intensity, I use denatured alcohol applied with a cotton bud. Depending on your location, denatured alcohol is available in your art or paint store and often at your local pharmacy.

Your finish over alcohol dyes must be compatible and applied with care lest you cause problems with the colouration



A cherry *(Prunus serotina)* lidded box body with desired leaves pattern burned into surface and now readied for colouring with alcohol dye markers

The good characteristics of alcohol soluble dyes are that they bleed through the wood fibres, remain there once the alcohol carrier flashes off and can be altered afterwards with the reapplication of alcohol and other dye colours. Their ability to be mixed, diluted and spread with other alcohol dyes and denatured alcohol gives you tremendous flexibility.

The bad characteristics are all of the same as noted above. They will bleed where they want unless you provide an effective barrier. They are permanent once the alcohol is gone unless you reapply alcohol or any other chemical that they are soluble in. Special care must be used in selecting and applying a finish over your dyed project. Careless selection or application of your final finish can cause the dyes to run or mix in an undesired manner. Once the final finish is applied, there is really no fix for any dyeing problems other than sanding back to bare wood and reapplying your colourations. If you want to colour broad expanses without interaction with other colours in a confined and controlled manner, all is good. If you want to create a controlled colour application, you need to create a barrier to stop the colour bleed. The most effective manner I have found and often use is pyrography. By burning lines into the grain of the wood, you effectively create a cauterised barrier that will stop the alcohol bleed halting the colour at that point. The marriage of pyrography and alcohol dye colouring is ideal allowing for the creation and colouring of patterns, pictures and other artistic expression.

Assuming you are going to use pyrography to control your dye colour locations, you may wish to apply a pattern, design or picture to aid in your creation. Depending on your artistic talents, you can also create your designs or pictures freehand on the fly as you burn. I'm not aware of any erasing mechanism should you burn in error. You certainly can pencil in your plans to get things laid out properly before you begin. If you make a mistake at that point, simply erase your error and redraw. You are also free to use any of the pattern transfer or design projection aids that are available. After completing your pattern with your burning, simple erasure or light sanding will remove the remaining pencil lines if needed. I usually mark out my pattern lightly in pencil and burn right on the lines so erasure isn't necessary. If I redesign on the fly and deviate from some of the pencil layout, I will lightly sand the surface to remove them. I recommend that you always do a light sanding to prep the surface for the dyeing and then application of finish. Even if you don't need to do this based on your pencil markings, a light sanding helps to refresh the surface and remove skin oils, etc. It will help provide for the best surface possible for the application of your finish. This is part of my normal process because the pyrography also usually creates ridges or small blemishes by burning pitch in the wood. Because the burned lines project down into the wood fibres, sanding the surface to ready it for finish rarely causes any problem with their ability to stop the dye migration

Cherry *(Prunus serotina)* egg shell ornament roof with pattern penciled in and burned. Notice the on the fly deviation from the original sketching

Prior to both burning and colouring, take the opportunity to refine the pyro settings and test colour results in a hidden test area of your material

TIPS FOR ALCOHOL DYE MARKERS

1. Selecting and using 'bargain' markers is usually false economy. Your project materials and invested time are worth the cost to select and use the best quality and lightfast markers
2. Denatured alcohol will clean up: dilute applied colours and rejuvenate markers if they dry out
3. Pyrographed patterns and designs work well for controlling the bleed of the dye throughout the wood grain. Glue up seams and grain irregularities will also work
4. Simple, light coloured and featureless woods lend themselves better to colouration
5. Keep your markers tightly capped whenever they aren't in your hand being used. Even laying them around uncapped while you work will dry them prematurely
6. Know or buy a colour wheel for the ability to create your own colours from mixing. The darker colour applied first lightened by the next colour or added alcohol works best
7. Practice with your colours on the actual turning in a hidden area. It will give you a preview of the final look of the colour and the interaction with the wood
8. Practice with your woodburning settings in a hidden practice area as well. You can zero in on the needed adjustment to get your desired line for that particular wood
9. End grain can be sealed with your preferred end grain sealer to better match the dye absorption between the end grain and face grain if needed
10. Don't forget or overlook the use of proper PPE and safe storage of chemicals, such as denatured alcohol

through the wood fibres. After sanding for final finish preparation, cleaning the surface with an alcohol wash to remove all dust, the dyeing process can begin once dry. It is your childhood art class, all over again. You can colour staying within the lines or get as free spirited as you wish. Once you are content with your colourations, corrections and are ready for finish, apply your chosen finish lightly and repeatedly for desired build. I have found that wetting the surface too much in any one application will cause problems with my dyed work. My favourite finish is sprayed lacquer. I shoot it right out of a rattle can. Be safe with your spray area and PPE. I shoot the lacquer finish in the lightest of coats and repeatedly to build until I get to the desired thickness. With lacquer, each coat chemically cuts into the prior coat so no additional surface prep is required between coats. I only use gloss spray lacquer using steel wool to bring the finish back to a semi-matte or matte finish if desired.

Painting turnings

For simple overcoating paint jobs, just sanding and cleaning will provide a good surface. This pen and desk stand was coloured with acrylics

One of my steam-bent ornament stands. I favour the sawn wood look so rattle can acrylic straight over the maple *(Acer campestre)* steam-bending with some highlights

Many times, the wood was never even visible in Giles' work. It was only a palette to paint on. Artist – Giles Gilson

A cherry practice piece using the epoxy overcoat prepped for surface painting. Lightning bolts practice airbrushed on the epoxy substrate

Even if you have no intention of painting on the epoxy surface, I find that the epoxy properly prepared makes an exceptional turning finish

Painting wood for preservation or simple colouration is pretty straightforward. The surface is sanded as desired and the dust cleaned off. For surface sealing and improved adhesion, a primer can be used if needed and followed by painting. Wood by its nature forever takes up and gives off moisture dependent on the relative humidity of its environment. As the moisture content of the wood changes, it will physically change shape and dimension. These changes can be a little or a lot, depending on the species and the grain orientation. Successful cabinetmakers know this all too well. Their joinery design and various door and drawer fits are designed specifically to survive and work well through these wood movements caused by moisture changes. I am not aware of any coating or finish that completely stops the moisture transfer in wood. When the wood moves, any paint on the surface needs to be sufficiently flexible to prevent cracking. With adequate flexibility and maintaining the bond to the surface, simple paint coverage can remain unscathed and apparently undamaged to the viewer. If you are going to paint a colour and won't create anything that some paint stretching and surface movement will hurt, you can spray your chosen paint straight on to the prepared surface. I often do this with ornament stands to just give them some colour and let the wood grain and even sawing marks show through. With a simple spray acrylic paint, the bond is good as is the functional lifetime. To paint on wood in an artistic manner whether high end spray painting or a creative work with hopes of longevity requires a more stable substrate. The substrate must be as inert as possible and

Some collaboration work in process with Giles at his studio circa 2009. Pierced chicken and goose egg shells with automotive lacquers

provide the best surface finish and adhesion for your chosen paints. Once the surface has been properly prepared, the application of paint and the creative process is almost boundless. The method I use is one I learned from the late Giles Gilson. The substrate for Giles' painting on turnings or any wood for that matter was epoxy. The wood was turned or worked to the end point ready for painting. That surface was prepped to accept the epoxy and then that epoxy surface was prepped to accept the paint. Depending on the planned painting, sometimes the wood was never visible and needed only to be the form around which the epoxy substrate was created.

The process I use as taught to me is to make the turning surface finish ready. Once the completed turning surface is prepped and cleaned, a thin coat of epoxy adhesive is applied. Giles always used West System brand mixed per their instruction ratios. I currently use the same brand but have on occasion experimented with other available brands out of curiosity. The keys to success are having the surface properly prepped and applying the epoxy in very light coats. The goal is to get the epoxy to wick into the wood pores as much as possible on the first coat. In that effort, a warming of the wood and the epoxy helps. A shop heat gun or hand-held blow dryer used on the low heat settings is best. The temperature needs to be warm only. If you can't keep your hand in the airstream continually and comfortably, it is too hot. The warm air is blown across the wood surface pre-warming it and then on the epoxy surface after application before it sets up. This lowers the viscosity and helps to level the coat. Your epoxy application tool can be anything from a flexible plastic card stock to a foam painter's brush. After the epoxy has fully cured, the surface is scuffed with abrasive to ready it for the next epoxy coat. Once again, the surface needs to be dust-free. After cleaning with denatured alcohol and allowing it to dry, that next coat of epoxy can be applied. The number of coats to be applied depends on the species of wood, the thickness of each coat after sanding and your intended paint application. Thicker isn't always better. I can't quote a recommended number of coats but several thinly applied coats are usually sufficient for most paint applications. After complete curing, that surface is sanded as needed to make a perfectly smooth surface. It is sanded and cleaned exactly as you would prepare the wood surface to receive a finish.

With your new more tightly sealed and inert surface, you can apply your painting in any level of elegance you wish. The finely sanded and clean surface will accept virtually any type of paint. Giles Gilson was known for his high gloss, candy colour automotive lacquer paint jobs. These multi-layer and optically tricky painted works made his art collected throughout the world. His final finish was a glossy lacquer that was highly buffed. In his studio, I used automotive lacquer paints but I am not equipped to use these at my own workshop. I use various acrylics from art store paint to airbrush formulations. For my simple overcoat colours, I will use acrylic spray paints directly from the rattle can straight on to the wood. For the more exotic paintings, I use airbrush formulations. Your choices can be based on availability and your proficiency with that material. The surface you are painting is not only very stable but also will accept nearly any paint you select. Obviously, with the epoxy substrate properly applied and prepared, nothing will penetrate through to the wood so the use of any penetrative colours won't work. My final finish is always sprayed lacquer. You can use whatever finish is compatible with your paint selection.

Other Gilson work in process in his studio

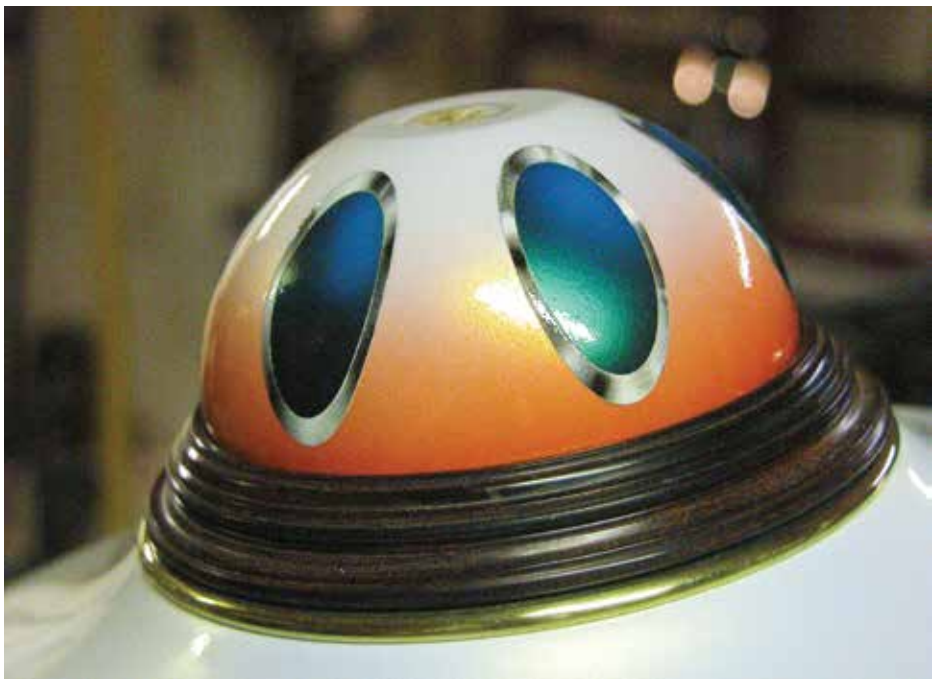
Work in process in Giles' studio. Ultimately, the inside throat of the turning would not be seen after assembly. Artist – Giles Gilson

TIPS FOR PAINTING

1. The final result is dependent on a quality surface to paint on. Care in the preparation of this will yield dividends in the final product
2. Use paints that you are familiar with and understand. I favour acrylics but you can use anything that will bond to the epoxy
3. Don't experiment and learn on a finished work. Create practice pieces, even flat, of the same species being used and work out the bugs
4. Painting, especially airbrushing and spray gun applications, is an art form in itself. Developing these skills will have far reaching applications
5. Masking and templates can make your painting easier and more professional. There are frisket and paint taping products that will assist your efforts
6. After your investment in time and effort in painting, give your work a durable final finish for protection. The longevity will depend on a tough finish

"You probably won't find a tougher finish for your work than epoxy"

A finished Gilson piece on display at The Center For Wood In Art in Philadelphia



Additional work in process in the Gilson Studio. Artist – Giles Gilson

Conclusion

For the turner who has never experimented with adding colour, you've now got two simple methods to begin working with.
If you are a purist and abhor the thought of colouring your work, don't add any paint but just give the epoxy substrate idea a try. Use it as your final finish for your work without adding any colour over the top. The epoxy finish coating can be as thick and as glossy as you wish. You probably won't find a tougher finish for your work than epoxy. If you are not in need of a near archival and perfect subsurface for your painting, you always just spray a paint colouring directly on the wood surface. For my steam-bent ornament stands, I leave the wood with a rough, as sawn texture. After the lightest of sanding and cleaning, I spray an acrylic paint right over the top of it to maintain the wood feel and look. I use as many coats as needed for coverage and colour intensity. An added spray clear lacquer top coat adds the gloss and protection. While these are only a few methods to tease your interest with, you are now armed to take on colouring of your turnings. I encourage you to give it a try. Whether you fancy yourself as a painting artist or not, I think you'll find the enjoyment of learning something new along with the ability to create truly unique work a great addition to your arsenal. ●

A collaborative piece done in maple with Binh Pho in 2011. A jazzed-up version of a pen and base created as a donation to the AAW EOG fundraiser