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Inlaying Vessels and Platters with Imagery

This overview of the basic steps used in making a platter inlaid with an apple tree and serpent is not intended to show the reader how to make this specific artwork but instead to use this example to illustrate those steps



necessary to complete a basic inlaid image project. Fine details of the technique are reserved for the demonstration.

MATERIALS

I prefer big leaf maple, but I've seen excellent results with many other woods. Choose a closed cell wood that is as hard as soft maple at least. I like big leaf maple for several reasons – it grows where I live (i.e., it's cheap), is light colored, has fabulous figure that I use as part of my compositions, and has an abrasive resistance roughly equivalent to the minerals I use (Moh's scale 3-4).

In this hardness range, I like to use crystals whenever possible with the crushing and mixing techniques explained earlier. For this example, I use the following minerals:

- Tree & Rim green calcite with black powder
- Leaves malachite (green mineral) mixed with green calcite powder
- Apples red dolomite mixed with green calcite powder
- Serpent mother-of-pearl chips and azurite (blue mineral)

PROCEDURE

 Turn a platter with gentle curves (think about making it simple to use power sanding), sand with 80 grit, then coat with dilute shellac. To make this mixture, dilute wax-free shellac with about 10



times as much denatured alcohol. You must use wax-free shellac or the inlay may not be secure. I use a spray bottle to apply this mixture and dry it quickly with compressed air.

2. Draw your image.
The shellacked
surface will erase
without smudging.
I freehand draw,
but you can copy
images. Just keep
them simple.



3. Carve the image about 3/16" deep using the Dremel tool and burrs. In this example, the location of the serpent crossing the tree is left blank.





 Spray the image recess with diluted shellac again. This will prevent the CA glue used to adhere the minerals from staining the wood.



- 5. Place the minerals.
 This depends on your image and desired effects.
 Refer to "Mineral Selection and Processing" for a minerals table and example of crushing tools.
- 6. Apply very thin CA glue to the minerals until thoroughly wet. Use minimum accelerator to avoid foaming or weakening the inlay. Let the project sit at least several hours to allow the CA to cure.
- 7. Using 80 grit sandpaper on a firm power sanding pad, sand the inlay smooth with the wood surface. This is best started with the lathe off, then turn the work slowly for the final sanding.
- Pitting always occurs in the first sanding. Use fine powder and CA glue to fill these pits, and then sand starting with 120 grit.
- Draw the inlay details as needed. In this example, apples, leaves, and a serpent are added.
- Carve the details as with the main image. After carving, be sure to re-shellac the project to prevent CA staining.





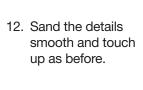








11. Place the minerals for the details as before.





13. Turn the platter rim as desired.



14. Add the minerals and CA glue. I always include colors from the imagery in the rim to tie the color schemes together.



15. Finish sanding to 320 grit. If there are troublesome pits remaining, fill with gel CA, hit with accelerator, and wait until you cannot leave an impression in the gel CA glue with your fingernail. At that time, sand again with 320 grit and then 400 grit (at least). Apply your finish of choice. I like to use a little dye to accent the grain and rim (applied with an airbrush), then topcoat with lacquer. I also have used tung oil, wipe-on poly, and boiled linseed oil successfully, but lacquer makes the inlay shimmer dramatically.

Decorative Inlaid Platter Rims

Adding a basic rim accent with inlay is easy, so we'll start there. Even a transparent rim is simple and can make a great gift. Copper banding is more difficult, but it works easily and sets off an inlay beautifully. Using purfling, a guitar accent material made from plastic, is even more challenging ... not because of sanding or finishing but because of the great care required to join sections together and make them look seamless.

EPOXIES

Epoxy is a two-part resin, and many will work with the techniques shown here. I have used West System 105 resin with 205 hardener, System Three resin with part B hardener (slow or fast), and Aeromarine #300 resin with #21 hardener. Only Aeromarine is nearly clear, whereas the others are slightly amber colored. The inlay covering of epoxy is fairly thin, so even the amber cast is minimal.

Don't use 30-minute or 5-minute epoxies because they cure too fast to allow bubbles to escape. I use cheap plastic cups and tongue depressors to mix the epoxy. Err on the side of too much mixing. Scrape the cup sides, bottom, and mix over and over and over. You'll get the air bubbles out after it's poured.

SAFETY

Use good ventilation and protect your eyes and hands from spills. Epoxy hardeners often contain MEK that is a health hazard plus who knows what. Be careful to measure the epoxy well. Adding extra hardener is not a good idea because there will be toxic hardener suspended in your otherwise cured epoxy.

EXPERIMENT

There are limitless possibilities for inlay fill material that will work with the techniques discussed here. The essential point is, whatever you use must be covered completely with epoxy. Many fill materials will be too hard to sand effectively if they poke up out of the epoxy.

Experiment with fill ideas before you commit to any one in a woodturning. I drill holes about 3/4" diameter into maple stock, say 4" x 4" holes each a 1/2" apart. The holes are sealed, painted, and filled with various inlay materials or mixes. Keep track of what's in which hole. Fill with epoxy and let cure, then sand and finish. Then label the samples on the board and keep it for reference.

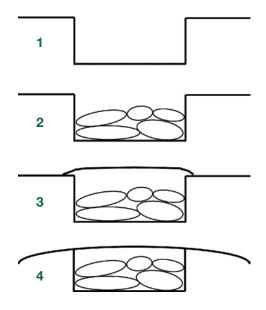
BASIC RIMS

A basic rim accent is easy to do and adds a little pizzazz. You can't use this technique on the side of a bowl because the epoxy will flow out of the recess. It is limited to the top side. In the demonstration, I will



address a method to use for the side of the bowl. Here is an example using green calcite crystals and gold leaf.

1. Partially turn a bowl or platter with a flat top surface. You can change the profile later, but it needs to be flat when you fill it with epoxy. Turn a recess about 3/16" deep and as wide as you want. Carefully trim the edges with light cuts to minimize tear-out. Seal the recess with wax-free shellac or dilute epoxy. Let it cure. Paint the recess. This is optional, but I think it looks the best. I prefer dark colors, black, ultramarine blue, whatever - the skies the limit. Let it dry.



- 2. Fill the recess about half full of sea shell chips, crushed minerals, fine gravel, beads anything goes.
- 3. Verifying that the woodturning is very level, fill the recess with epoxy just enough to cover the fill material. Poke around the fill with a bamboo skewer or other tool to release bubbles. Heat the epoxy slightly with a hot air gun to pop those bubbles. Then fill the recess all the way to the top. Usually bubbles will not be a problem hereafter.

- 4. After the epoxy has cured overnight, you can sand the surface and wet it to see how your inlay looks. Turn the epoxy using a negative rake scraper to create a profile of choice. Getting a really good finish on the epoxy requires that it cure for several days.
 - 5. Finish as you prefer.

CLEAR RIMS

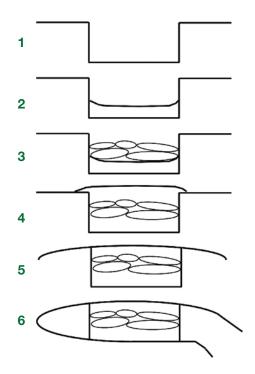
Clear rims can be dazzling. I recently made one for my sister and her beloved terrier.

1. Partially turn a bowl or platter with a flat top surface. You can change the profile later, but it



needs to be flat when you fill it with epoxy. Turn a recess about 3/8" deep and as wide as you want. Carefully trim the edges with light cuts to minimize tear-out. Seal the recess sides with shellac or dilute epoxy. Let it cure. Paint the recess. This is optional, but I think it looks the best. I prefer dark colors, black, ultramarine blue, whatever – the sky's the limit. Let it dry.

2. Fill the recess 1/3 full of epoxy. Use a heat gun to get rid of bubbles.



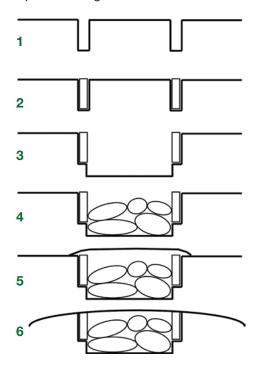
- 3. Fill the recess about 1/3 full of translucent crushed minerals, beads, etc. Don't use materials or material volumes that will prevent light from passing through. Warning: plastic beads may float to the surface, so test them first in a little epoxy.
- 4. Verifying that the woodturning is very level, fill the recess with epoxy just enough to cover the fill

- material. Poke around the fill with a bamboo skewer or other tool to release bubbles. Heat the epoxy slightly with a hot air gun to pop those bubbles. Then fill the recess all the way to the top. Usually bubbles will not be a problem hereafter.
- 5. After the epoxy has cured overnight, you can sand the surface and wet it to see how your inlay looks. Turn the epoxy using a negative rake scraper to create a profile of choice.
- 6. Turn the wood off of the backside so the transparent rim is visible. Sand both surfaces and wet it to see how your inlay looks. Getting a really good finish on the epoxy requires that it cure for several days.
 - 7. Finish as you prefer.

COPPER

Copper edging looks great on a rim inlay, a technique I learned from Ted Wallenius. Use annealed 18-gauge square copper wire from a jewelry supply house, such as https://hassis.com.new.google.com.

- 1. Turn two recesses just wide enough for the copper to fit flush with the surface or a little below it. Seal the wood with dilute shellac, let dry and insert the wire into the recesses.
- 2. You'll need to use trial and error to sand the copper ends so they fit well together. Tack in place with super thin CA glue.



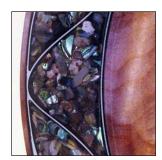
- 3. Turn a recess between the copper rings, about 3/16" deep. Carefully remove any thin bits of wood next to the copper bands.
- 4. Fill the recess about half full of sea shell chips, crushed minerals, fine gravel, beads anything goes.
- 5. Verifying that the woodturning is very level, fill the recess with epoxy just enough to cover the fill

material. Poke around the fill with a bamboo skewer or other tool to release bubbles. Heat the epoxy slightly with a hot air gun to pop those bubbles. Then fill the recess all the way to the top. Usually bubbles will not be a problem hereafter.

- 6. After the epoxy has cured overnight, you can sand the surface and wet it to see how your inlay looks. Getting a really good finish on the epoxy requires that it cure for several days. Don't oversand because the copper isn't very deep.
 - 7. Finish as you prefer.

PURFLING

Purfling is a guitar edging material made from plastic. It comes in black and white and in black-white-black layering. I buy it at LMII.com under "Mostly Not Wood." It is rather difficult to explain in a brief handout, so this will be demonstrated.



- 1. Turn the inlay recess with the edges just a little deeper than the main recess and wide enough for the purfling to fit flush with the surface or a little below it.
- 2. Seal the wood with dilute shellac, let dry, and insert the purfling into the recesses. You'll need to use trial and error to sand the purfling ends so they fit well together. Tack in place with super thin CA glue.
- 3. Purfling is flexible, but it will kink. To create flowing lines in the middle of your inlay, slowly work sections of purfling into a pattern you've designed. Tack with CA glue.
- 4. Fill the recess about half full of sea shell chips, crushed minerals, fine gravel, beads anything goes.
- 5. Verifying that the woodturning is very level, fill the recess with epoxy just enough to cover the fill material. Poke around the fill with a bamboo skewer or other tool to release bubbles. Heat the epoxy slightly with a hot air gun to pop those bubbles. Then fill the recess all the way to the top. Usually bubbles will not be a problem hereafter.
- 6. After the epoxy has cured overnight, you can sand the surface and wet it to see how your inlay looks. Getting a really good finish on the epoxy requires that it cure for several days. Don't oversand because the purfling isn't very deep.
- 7. I use a very fine tipped plastic toothpick to paint the purfling joints. I wear a jeweler's magnifier and use great care. The paint cannot form a bead or it will affect your finish

- 8. I often airbrush TransTint dye over the inlay to make the white a more complementary color.
 - 9. Finish as you prefer.

DIAMONDS OR COLOR

You can use any other above technique and add a little pazazz by adding diamonds or circular insets. I buy various sizes of square and round UHMW plastic from <u>USPlastics.com</u> and cut it into 1" lengths. The ends must be squared, and I do that on a 12" sander. Be sure to clean off the fuzzy edges.

1. After turning a recess using any technique above, tack the UHMW plastic inserts vertically into the recess according to any spacing you prefer using CA glue.



- 2. Seal the recess with dilute shellac or dilute epoxy then paint the recess some color.
- 3. Fill the recess about half full of seashell chips, crushed minerals, fine gravel, beads anything goes.
- gravel, beads anything goes.

 4. Verifying that the woodturning is very level, fill the recess with epoxy just enough to cover the fill material. Poke around the fill with a bamboo skewer or other tool to release bubbles. Heat the epoxy slightly with a hot air gun to pop those bubbles. Then fill the recess all the way to the top. Usually bubbles will not be a problem
- 5. After the epoxy has cured overnight, use a pair of pliers to carefully pull the inserts out of the epoxy.

hereafter.



- 6. Fill the resultant voids with a contrasting material and fill with epoxy.
- 7. After the epoxy cures, you can sand the surface and wet it to see how your inlay looks. Getting a really good finish on the epoxy requires that it cure for several days.
 - 8. Finish as you prefer.

Translucent Platter Inlay



MATERIALS

I prefer bigleaf maple, but I've seen excellent results with many other woods. Choose a closed cell wood that is as hard as soft maple at least. I like bigleaf maple for several reasons – it grows where I live (i.e., cheap), is light-colored, has fabulous figure (I use as part of my compositions), and has an abrasive re-sistance roughly equivalent to the minerals I use (Moh's scale 3-4).

In this hardness range, I like to use crystals whenever possible. Refer to "Mineral Selection and Processing" for a minerals table and example of crushing tools. For this example, I used clear calcite that was dyed blue and yellow.

PROCEDURE

- Turn a platter with gentle curves (think about making it simple, to use power sanding), sand with 80 grit, then coat with dilute shellac. To make this mixture, dilute wax-free shellac with about 10 times as much denatured alcohol. You must use wax-free shellac or the inlay may not be secure. I use a spray bottle to apply this mixture and dry it quickly with compressed air.
- 2. Draw your image. The shellacked surface will erase without smudging. I freehand draw but

you can copy images – just keep them simple. This wood has a bark inclusion that will be used in the design.



3. Carve the image about 3/16" deep using the Dremel tool and burs. Spray the image recess with dilute shellac again. This



will prevent the CA glue used to adhere the minerals from staining the wood. Begin placing the minerals in non-translucent areas, usually very narrow lines.

4. Tape the back with waxy tape like guitar makers binding tape. Place the minerals. This depends on your



image and desired effects. Refer to "Mineral Selection and Processing" for a minerals table and example of crushing tools. Apply very thin CA glue to the minerals until thoroughly wet. Use minimum accelerator to avoid foaming or weakening the inlay. Let the project sit at least several hours to allow the CA to cure.

 Here I add a rim line on the lathe using a Dremel tool.



- Apply very thin CA glue to the minerals until thoroughly wet. Use minimum accelerator to avoid foaming or weakening the inlay. Let the project sit at least several hours to allow the CA to cure.
- Using 80 grit sandpaper on a firm power sanding pad, sand the inlay smooth with the wood surface. This is best started with the lathe off, then turn the work slowly for the final sanding.
- 8. Pitting always occurs in the first sanding. Use fine powder and CA to fill these pits, then sand starting with 120 grit. Be sure to reapply dilute shel-lac before any CA glue is applied. Finish sanding to 320 grit. If there are troublesome pits remaining, fill with gel CA, hit with accelerator, and wait until you cannot leave an impression in the gel CA glue with your fingernail. At that time, sand again with 320 grit and then 400 grit (at least). Apply

your finish of choice. I like to use a little dye to accent the grain and rim (applied with an airbrush), then topcoat with lacquer. I also have used tung oil, wipe-on poly, and boiled linseed oil successfully, but lacquer makes the inlay shimmer dramatically.



MineralAzuriteBlack Mica (Biotite)Mclacitie)Calcite)ChrysocollaDolomiteFluoriteHowliteMalachiteTurquoiseColorDeep BlueBlackLight Blue, GreenLight Blue, GreenWhite, Pink, Green, BlueWhite, Pink, BrownWhite, Pink, BrownWhite, Pink, BrownWhite, Pink, BrownWhite, Pink, BrownGreen with Blue, Green with Green with Blue, Green with Blue, GreenBlue, Green with Blue, GreenColor DepthExcellentMediumPoorExcellentPoorExcellentPoorClarityPoorA.6-3.03.02.0-4.03.5-4.04.03.5-4.05.0-6.0Hardness3.5-4.03.02.0-4.03.5-4.04.03.5-4.05.0-6.0				Mineral	ineral Selection and Processing	n and Pro	cessing			
Deep BlueBlack Green, Red, AborLight Blue, Green Green, Bed, BlackLight Blue to Green Green, Bed, BrownWhite, Pink, Green, Blue Green, BluePurple, Red, Green, BlueWhiteGreen with StreaksDepthExcellentPoorExcellentPoorExcellentPoorPooryPoorAddiumExcellentPoorPoorPoory2.4-3.03.02.0-4.03.5-4.04.03.53.5-4.0	Mineral	Azurite	Black Mica (Biotite)	Alabaster (Calcite)	Chrysocolla	Dolomite	Fluorite	Howlite	Malachite	Turquoise
Excellent Medium Poor Excellent Poor Excellent Poor Poor 3.5-4.0 2.4-3.0 3.0 2.0-4.0 3.5-4.0 4.0 3.5 3.5-4.0	Color	Deep Blue	Black	Light Blue, Green, Red, Orange, Black	Light Blue to Green	White, Pink, Brown	Purple, Red, Green, Blue	White	Green with Streaks	Blue, Green
Poor Medium Excellent Poor Poor Poor 3.5-4.0 2.4-3.0 3.0 2.0-4.0 3.5-4.0 4.0 3.5 3.5-4.0 3.5-4.0 3.5-4.0 3.5-4.0 3.5-4.0 3.5-4.0 3.5-4.0 3.5-4.0	Color Depth	Excellent	Medium	Poor	Excellent	Medium	Poor	Excellent	Excellent	Excellent
3.5-4.0 2.4-3.0 3.0 2.0-4.0 3.5-4.0 4.0 3.5-4.0 3.5-4.0 4.0 3.5-4.0	Clarity	Poor	Medium	Excellent	Poor	Medium	Excellent	Poor	Poor	Poor
	Hardness	3.5-4.0	2.4-3.0	3.0	2.0-4.0	3.5-4.0	4.0	3.5	3.5-4.0	5.0-6.0

Color Depth - How well the color is maintained as the mineral is crushed into smaller sizes or inlaid in a shallow layer.

Clarity - How well the crystals reflect and refract light. Excellent clarity is needed for translucent inlays.

Hardness - Moh's Scale. What matters is that the inlay minerals are in the 3 to 4 range. The ability for AIO 80g sandpaper to readily cut through an inlay of minerals and resin is about the same as sanding soft maple (PNW bigleaf maple).

mages are typical, but there can be large variations. Calcite comes in many colors, but the image is of Green Calcite.

To crush and sort mineral crystals, use an old pot or tea kettle with a steel bar (i.e., big chisel butt end) plus an assortment of kitchen sieves, often found in second-hand stores for a few dollars. A crusher is easily made from pipe fitting available at any store. This process takes a little experience, but you'll learn quickly by doing.

If you need finer powders, use a 2nd-hand coffee grinder with smaller mineral pieces.

Follow reasonable safety practices when crushing minerals because the process creates fine dust. Be sure to wear protective gear for eyes, ears, and lungs. Use ample shop ventilation when working with CA glue or epoxies.

Minerals are readily available at rock shops, online, eBay, Amazon, and Alibaba.

Green Calcite and the Optically Clear Calcite are readily sanded, but a lot of the other colors of calcite, although with the same hardness specified, are much more difficult to sand. The color variations are the result of impurities like cobalt, lead, etc., and these impurities can make some colors very tough to work. Test inlay materials before committing to their use.

Dolomite is a strong pink mineral that comes in shades of almost white to a dark pink. Most of it is a medium pink color.

TURN A **SUNCATCHER** ORNAMENT

Stephen Hatcher

simple turned, lens-shaped ornament makes a great small gift. I make these in the fall for upcoming holiday parties and gift exchanges. These ornaments are easy to make yet quite attractive and fun both for the maker and recipient. The basic idea is this: turn a simple receptacle in a disc, fill the recess with a sandwich of epoxy and light-catching filler, then, after the epoxy cures, turn both sides to shape and expose a window of clear epoxy.

Turn a receptacle

I like to use maple boards with some figure and/or spalting. Any scraps will do, but waxy woods should be avoided, as the epoxy casting may not adhere well to the wood. Mark and cut out the ornament blanks, which should be at least ½" (13mm) thick and 2½" (6cm) in diameter (Photo 1).

To start, mount the workpiece and turn a small tenon on one side. I jamchuck the blank between a chuck and the live center of the tailstock. Alternatively, you could mount the blank using a drive spur and live center, a small faceplate with screws or double-sided tape, or a vacuum chuck. Remove the workpiece and use the tenon to remount it in a four-jaw chuck.

Figure 1 shows a cross section of the turning as I make it. When turning



embedded lets the sun shine through.

the recess, keep the sides and bottom roughly square, at least until you gain a little experience in predicting the final shape. I use a gouge to remove most of the material and follow with a square-nose scraper to clean up the corners. The final profile will be lens shaped, so the recess corners do not need to be exact and the bottom does not need to be truly flat. A little tearout on the bottom does not matter, as that wood will be turned away later, but try to keep the sides free of large pits. Don't worry about any sanding. Do keep the depth of the recesses on multiple ornaments the same because you need to know this depth when shaping the pieces.

Paint and pour

After turning the recess, paint the interior sides. You do not need to paint the bottom, though it won't hurt to get paint on that surface (Photo 2). I use acrylic airbrush paint, applied with a brush because it is what I have and it works fine. On porous woods, the paint may soak in and stain the wood pores, so do a test piece first. If it does stain, seal the wood with diluted epoxy. Other sealers may work, like shellac or sanding sealer, but I have not needed to worry about it as maple has a closed-cell grain structure and the color does not tend to soak in too

much. Test your woods, paint, and sealers first. The color you choose for the inside walls will be visible when the ornament is finished, so choose a color that will complement your choice of fill material.

Fill the recess about one-half full with epoxy (Photo 3). I use AeroMarine 300/21, as it is thin and clear and creates very few bubbles. West System 105/207 will work, as well as Alumilite, but I prefer AeroMarine because I have a lot of experience with it working well. If the epoxy has bubbles on the top surface, pop them using a butane torch or heat gun. Do not overheat the pieces, as air will bubble out of the wood capillaries into the epoxy and potentially ruin your pour. Heat will also cause the epoxy to cure faster and getting bubbles out will be difficult or impossible. I prefer a quick pass with a butane flame and all the surface bubbles disappear. So practice first. Once you have half-filled the receptacle and the bubbles are eliminated, let the pieces sit in a dust-free area.

After the pieces sit for four to eight hours, the epoxy will stiffen up. At

this time, add a layer of something sparkly or colorful. I have used mica, auto-paint additives, mineral crystals, seashell pieces, and powdered metals. These all work well, but mica is my favorite because it is reflective, translucent, and available in many colors. What does not work well are bits of plants like flowers and cedar boughs, as they float to the top of the epoxy when the second half of the pour is applied. Experiment with different materials. Items that float can be epoxied in with a thin pour that will be allowed to firm up before the next step.

When the decorative materials are placed, pour more epoxy to fill the recess completely. Sometimes the materials will shift during the second pour, but you can straighten them using a toothpick or equivalent (*Photo 4*). If a few pieces float to the top of this second pour, don't worry—they will be sanded off later.

Leave the cast pieces to cure fully, about a week. It will be easier to turn and sand the epoxy when it is fully cured. Epoxy that is partly cured will not take a good finish.

Turn the front face

Remount the ornament blank by holding the tenon in a four-jaw chuck. Turn the face of the ornament using a regular gouge on the wood ▶

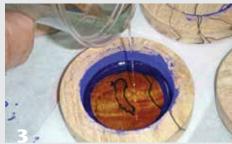
Materials and dimensions I prefer to lay out and cut several ornament blanks to have plenty on hand for the holidays. 1/51 21/2" (64mm) min. (13mm) 1/51 (13mm) Bottom thickness and tenon depth are both about 1/8" (3mm).

Figure 1. Cross section of ornament blank showing lens-shaped profile (dotted lines).

Paint, pour, fill



Paint the inside walls of the recess. Any paint on the recess bottom will be turned away later.



Pour epoxy into the recess until it is half-full.



Add decorative elements such as mica, then complete the epoxy pour to the top, trapping the sparkly materials inside what will become a translucent window. Reposition errant pieces with a small pick or brush.

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and a small negative-rake scraper on the epoxy. To learn more about using negative-rake scrapers, see *Journal Archive Connection*. If you try to turn the cured epoxy with a gouge or regular scraper, it will chip.

First, remove wood using a gouge to one-half the depth of the recess (remembering that there is about ½", or 3mm, of wood in the bottom). Follow with the negative-rake scraper on the epoxy section. The completed rough profile is convex in this example but can have other

profiles according to your own design (*Photos 5–7*).

Turning epoxy with a negative-rake scraper can get messy, but it is fun. I turn from the center to the edge with light cuts. Though *Figure 1* shows the ornament having a double-convex, or lens, shape, you can vary the profile greatly. I have made ripples like a stone in water and it looks great, but it is a little harder to sand. For Christmas ornaments, making the epoxy concave will make them lighter and also looks great.

JOURNAL ARCHIVE CONNECTION

See Stuart Batty's informative article on negative rake scrapers in American Woodturner vol 21 no 1, page 24. The journal archives can be found at woodturner.org.



After turning, sand the face to 1,000-plus grit abrasive. I use a soft, 5" (13cm) sanding pad. (Handy Tip: 5" sanding discs are less expensive than many 3", or 8cm, sanding discs and after wearing out can be cut down to 3" and used at the smaller size.) For more complicated surfaces like the rippled effect I mentioned, I use handheld abrasives. The epoxy sands easily, so power sanding is not essential.

I use a small, diamond-tip parting tool to add detail lines to the face and a chatter tool to add a decorative band on the epoxy (*Photo 8*).

Turn the opposite side

Reverse-mount the ornament to complete the opposite side. I use the live center contact mark to align the piece to a vacuum chuck (*Photo 9*). If

Turn one face



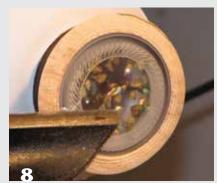
Turn away wood with a gouge, beginning to shape the convex face to half the depth of the recess.



Use a negative-rake scraper to turn the epoxy window. Don't worry, it will be well worth the stringy mess.



The finished convex shape of one side of the ornament.



Sand smooth, then add decorative lines and chatterwork.

you don't have a vacuum chuck, you can reverse the ornament and place it against a pad using the live center to position it (*Photo 10*). An internal jam chuck will not work because the edge of the ornament must be accessible during turning and sanding. My pad is a piece of rubber floor matting, but foam or a folded rag will also work. It just needs to securely hold the work when lightly compressed by the tailstock.

With the workpiece remounted, turn, sand, and accent the back face, just as you did the first side. On this side, you will be turning away the tenon and through the bottom layer of wood to expose the epoxy. First make a gouge cut on the wood, then scrape the epoxy, sand, and add the chatterwork.

If you have remounted the workpiece using the live center (as shown in Photo 11), a small nub will remain after turning. You can remove this nub using a small, firm sanding attachment chucked in a drill press. This step is a little awkward at first, but it is a technique I use in making my more complicated pieces like teapots—it gets easier with practice. Carefully remove most of the wood with 80-grit abrasive, then jump to 180 grit, and finally 400. The idea is to use the higher grits to remove the last of the wood so the sanding is minimally aggressive. Move the work smoothly under the sanding pad and you can get excellent results (Photo 12). Watch your fingers, as the abrasive edge will give a nasty cut.

Add color and finish

To give the wood and chatterwork some color, I airbrush on a TransTint® dye, then wipe off the excess. You can use a rag as well. The dye will not color the epoxy but it will adhere in the chatterwork and gives the piece a nice accent. Then

On the flipside



Reverse-mount the ornament so you can turn the opposite side. I like to do this with my vacuum chuck, using the live center for alignment.



An alternative to the vacuum chuck: press the workpiece with the tailstock live center against a soft pad held in a chuck.



Turn away the tenon and bottom layer of wood. With the tailstock in place, a nub will remain that cannot be turned away. Here, I left a large nub, but it can be much smaller if you use a cone on the live center.



Sand away the nub using a sanding attachment chucked in a drill press.

I airbrush brass powder or Pearl Ex powder pigments mixed with wax-free shellac over the color for a bit of sparkle. If you don't have a vacuum chuck, you can complete this step by freestyle spraying the edge. It actually looks really good when the airbrushed accents are uneven and of mixed colors.

For a final finish, I use lacquer, but any number of options will work, including a clear acrylic finish in an aerosol can. With this type of finish, use a light coat and stop there. More coats cause a buildup of orange-peel surface that distracts from the beauty of the

ornament. Experiment with your favorite finish.

Add a ribbon to hang the ornament, and you've got a unique, light-dazzling gift to share with someone special.

Stephen Hatcher has been an avid woodturner since 1998. You can learn more about his artwork and techniques at stephenhatcher.com.



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