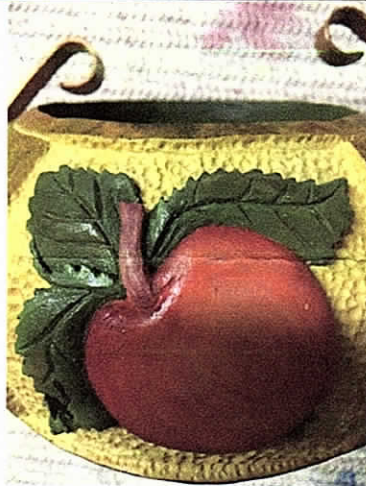
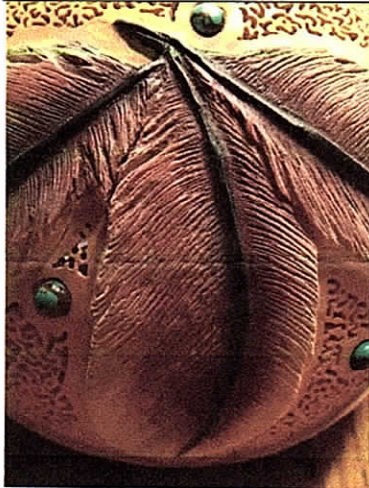


Feathers and Fruit

With Liz Meyer ©



In this carving workshop we will be working with our rotary tool to create a carving on a gourd using different bits and burrs. The first thing we will do is practice a feather pattern on a gourd shard or gourd-your choice. In this step I encourage each student to try different bits and burrs to see how each one carves. You can then move on to carving a piece of fruit-again on a shard or a gourd.

Supplies Needed:

Rotary tool and bits and burrs

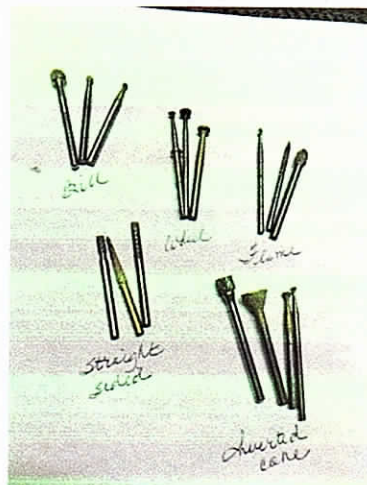
Gourd shards and gourds 3/8-1/2" thick

Mask

Diamond bits and files

Red ink pen and scotch tape

Liz will have patterns, tutorials, graphite paper, etc.





CARVING GOURD FEATHERS

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ROTARY CARVING TOOLS

Rotary tools allow the carver to produce quality carvings with a minimal amount of work.

Here are some tips:

1. Select a variable speed rotary tool, if possible.
2. Cordless rotary tools aren't usually able to provide the power and strength necessary to do a lot of carving nor do they usually have as many rpm's available. They also may need to be recharged often during your time carving.
3. Flex shafts-these make carving easier and they are easier on the hands than the larger tools. They are also cooler to the touch if you will be carving for a length of time. You need to remember to keep the shaft as straight as possible during use or the shaft could be damaged. It is best to extend it from overhead or lay it out so that the shaft is straight out from the work area-either on a towel or mat to decrease the vibrations.
4. Keyless chuck-if you don't have a keyless chuck you can purchase these at many different locations, These make changing from one bit to another much easier and quicker. Another option to this would be to use 3mm brass tubing as a sheath on the bits you already have. The tubing will slide up the smaller shaft of the bit. Cut to length and glue or solder to the bit. The keyless chuck is relatively inexpensive and an easy way to go. The only drawback is that the keyless chuck is more difficult to really get as tight a fit in the rotary tool but they eliminate the need to change the drill collet every time you change from one size bit to another.
5. Foot pedals-these are like the sewing machine foot pedal. You plug the rotary tool into the foot pedal and the foot pedal into the wall. You can then control power to the tool and the speed at which the tool rotates. This eliminates having to reach for your on off switch every time you want to stop or start carving or you want to turn the gourd.

CARVING TECHNIQUES

Safety First!

1. When carving strive for good ventilation. Using a suction fan as well as a fan to blow away the dust is recommended. Wear a good quality dust mask as well as eye protection and ear plugs.
2. Make sure that you have the gourd held securely so it doesn't fly out of your grip
3. Be careful to avoid losing control of the rotary tool while carving. One of our members actually cut her lip with the carver when she dropped it and

tried to catch it.

BITS

1. Experiment with what you have and invest in only the basics first-you'll find you will probably only use a select few for most of your carving.
2. Make sure that your carving burs don't overheat when you have them buried in the material. This is the quickest way to wear out the cutting edge. Lift the bur frequently from the gourd and allow it to cool while spinning.
3. When inserting the bit, push it all the way into the tool and then pull back on it slightly before tightening it down. If you find it difficult to pull the bit out of your tool to change it, you may need to push it in further and then pull it out. Remember that it might be hot!!!
4. Use the sides of the cutting bits rather than the tip of the bit as the tip cuts more poorly and could break under the pressure you apply while doing your carving.
5. Structured tooth carbide burs-
 - a. These cut aggressively and quickly over large areas. They have small pointed "teeth" covering them and the spacing on them doesn't clog up easily.
 - b. They come in various shapes and sizes and different grits. The finer the teeth the smoother the cut-the finest leaving a "fur-like" texture.
 - c. These can be purchased at woodworking and specialty stores or online.
 - d. Use the gold or silver burs for gourds-these are the medium to fine coarseness and won't damage the gourd. The colored burs tend to be too aggressive and are best for woodworking.
 - e. These come in four main shapes-the flat end bur (cylinder/inverted cone)-the end of the bur smooths and the edge of the bur tip cuts sharp clean lines;the round body tip bur leaves no sharp edges; and, pointed tip burs (long taper/flame) get into tight areas and round out areas

HIGH SPEED CUTTERS

These come in many shaped and sizes, are readily available, and are relatively inexpensive,making them appropriate for beginning carvers. The finer carving bits usually have a smaller shank, while those designed for heavier carving have a larger shaft. These can be purchase in sets with several shapes included.

What a bit can do -

- 1.Wheel burs are for cutting slots and defined lines. These also work well for undercutting around your carving.

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2. Small ball burs are for stippling and texturing
3. Steel engravers are for fine detail and hard to reach places.
4. Diamond burs are not for cutting through the outer shell. They are best for fine work and smoothing without removing too much material. They require frequent cleaning.
5. Sanding drums have replaceable bands in different degrees of coarseness. The coarser grits will remove the outer shell while the finer grits leave a smooth surface on the inner shell. Remember to adjust the band periodically by loosening the screw at the top and pulling the band up. This provides a sharp edge and provides coverage for the screw so that you don't inadvertently damage your work by hitting it with the screw. Replace the bands often for the best results

THE MECHANICS OF RELIEF CARVING

The grip we call this grip the "power grip" It is more secure and ergonomic than the pencil grip.

For heavy carving this is less fatiguing on your hand and provides the necessary security for the carving tool. Hold the tool under the palm of your hand similar to holding a paring knife or potato peeler. This way the weight of the tool is below your hand and is therefore less fatiguing. Use the side of your thumb as an anchor and guide for your hand by placing it against the gourd. Then rest the index and middle knuckles as additional rests and guides. The "pencil" grip is good for your fine detail work.

The direction the bur rotates is indicated by the direction the dust and chips are thrown-this is the direction the tool is spinning. The bur will cut more aggressively and with better control if it is drawn in the same direction as the bur is spinning. Right handed carvers will have better control if the bit is pulled toward them or they are rotating the gourd away, Rotating the gourd away is safer in that the rotary tool doesn't get too close to your body or the hand holding the gourd. This will become natural with a little practice. Left-handed carvers do better with structured tooth carbide burs and diamond bits as they aren't made for just right handed carvers and are unidirectional.

CARVING A FEATHER

You can't carve what you don't know.

Study your subject carefully. Remember that feathers can be both cupped or flat, depending on their placement on the bird's body and their function.

1. Begin by carving away the material around your feather-you do this by outlining the feather with a small wheel bit, an inverted cone or a small ball bit(whatever works best for you!!!). An overlay or split in your feather can be outlined now or be added later. Now remove the skin around the feather, going as deeply as you feel you can without going clear through the shell.

2. Next you will shallowly remove the shell from the entire feather. The quill of the feather is usually higher than the outside edge. Outline on each side of the quill and then round the top of it smoothly.

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3. You will then sand down to the outer edge of the feather. Most feathers have a "high point" that is usually an oval area around the quill. Begin at this high point and carve down to the outside edge, gradually thinning as you go. Working in this direction will help prevent unwanted hills and valleys. You are striving for a gentle convex shape. Remember to use a fine grit sanding tool to produce a smooth surface on your feather and the surrounding area. Now you will "undercut" around the outside edge of the feather using a small wheel or inverted cone. This will create a feather that isn't part of the surface but is floating on top of it.

4. You can now add the barbs to the feather. Using the heel of your hand as a pivot point, you can create these with a small inverted cone. Lightly touch the edge of the bit next to the quill and "roll" it to the outside edge of the feather. Moving the bit slightly up or down, you will create the next barb. As long as you keep the heel of your hand down, you will find that the arc you create will be identical each time. Look at a real feather again - does yours look the way you want it to look? Remember to lightly "texture" the outside edge of the feather at the end of each barb to create a realistic edge. For the overlay or splits you can interrupt the barbs path or angle it in the direction of the overlay or split.

4. If you are happy with the look, you can now color the feather as you like and add your finish coat.

HAPPY CARVING!!!!

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POWER CARVING SIMPLE GOURD FRUIT

Class description: in this class we will cover the basics of power carving on gourds using the rotary tool and various drill bits. Students will take two simple patterns, center them on opposite sides of the gourd and using graphite paper and red pen, copy them onto the gourd. Using a fine tip black marker, go over the pattern again (this will be removed as you carve). After the carving is completed, Gesso or a spray-on finish will be applied. Additional "framing" can be done around the fruit, as you wish, before spraying.

Supplies provided: tutorial with patterns of various sizes appropriate to fit different sized gourds, ink dyes and pads for staining the shell, Gesso and spray-on top coat, and acrylic paint. (cleaned gourds(\$4) and #194 Dremel bit(\$6) available for purchase).

Student to bring: Gourd 5-7 inches in diameter with a shell thick enough for carving. Project can be made with or without a lid; rotary tool with a #194 Dremel drill bit and any other drill bits that you might have—both aggressive for shell removal and fine bits (diamond) for sanding and smoothing: sand paper and/or a black nail file (I like to use these), pencil, fine tip black marker, ruler, tape, graphite paper, paint brushes, knead eraser, dust mask, and a portable table top filter (if you have one).

LET'S BEGIN:

Transfer the patterns onto the gourd, centering them on either side, using the graphite paper and a red pen. Going over the graphite lines with the marker will assure that they won't be rubbed off as you handle the gourd during carving. Using the #194 Dremel drill bit (note—the bit has a cutting surface on the sides and also the top that allows for double cutting) move along the gourd surface and outline the pattern. Hold the bit at a 45 degree angle to the surface, approximately 1/16 inch outside of your line (photo 1). This distance allows for rounding and under-cutting later. If you wish, you can go around the outside of the pattern with a small wheel. (photo 2).

Continue around the outside of the fruit and leaves (photo 3). I will demo how to use the bit to achieve the jagged edges on the leaves

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by pushing the bit into the sharp leaf-end points. (Photo 4).
Also, create the vein lines, stem, and blossom end of the fruit.
Follow with continuous strokes until deep enough to still retain the
shape of the fruit as you remove the remainder of the skin (photo 5).

Now you remove the skin from the entire surface while retaining the
pattern you made with your outline cuts. (Photo 5).

With diamond bits, begin to smooth the area and create the
roundness of the fruit and the detailing on the leaves and stem.

(Photo 6)

On the leaf curls you will deepen and push the bit under the edge to
mimic the curl.

Now you fine sand the piece with sand paper or the nail file and
continue creating detail.

Using Gesso or a mat spray, seal the carving. Paint with slightly
thinned acrylic paint using at least three different shades applied in
layers. Seal the painting.

The area that is not painted will darken slightly with the application
of the top coat.

Continue with any of the above steps until you are happy with your
work. With practice it will become easier and a lot of FUN.

Thank you for joining me and God Bless! Liz

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