

GLASS PATTERNS

— • Q U A R T E R L Y • —

Fall 2018

Volume 34 • No. 3

Holiday Issue

Stained Glass

Snowflakes

3-D Birdhouse

Intro to Plating

Mosaics

Greenman Suncatcher

Fused Glass

Mica Leaves

Turkey Vase

Poinsettia Platter

Holiday Trees

Spider

Mixed Media Pumpkin

Glass Tattoo Gue



Volume 34 No. 3

\$6.00 U.S. \$7.50 Canada



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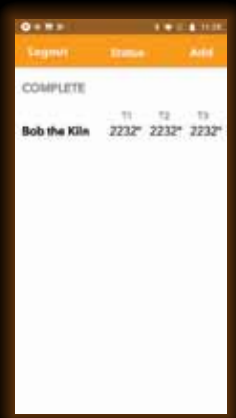
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From the Editor

It's Never Too Early

A common idiom in the English language is the saying, "It's never too late." In other words, it is never impossible to do something regardless of how old one is. That may be true, but I'm here to challenge that notion, especially with regard to holiday crafting. My thought is this: "It's never too early to . . ." (You fill in the blank).

As I write this letter, it is early August. I've recently been to various mainstream craft stores and, you guessed it, they already have their Christmas, Thanksgiving, and Fall 2018 decorations ready for purchase. They are definitely operating under the "never too early" principal.

Glass Patterns Quarterly has been working on holiday articles since last spring. I want to thank each and every one of our amazing fall issue contributing authors. They really rallied to come up with unique spins on beloved holiday images. These artists start their creative juices flowing long before Memorial Day so that you can enjoy a fabulous collection of fused, mosaic, and stained glass projects all in one resource.

We were busy sketching designs for holiday fun back in the spring. Now it's your turn to get started on your holiday projects whether you are creating for fun, decor, or gift giving. Everyone loves to get something in glass for the holidays!

Besides the projects in this issue, there are wonderful glass art projects from past issues of *GPQ*. Just visit www.glasspatterns.com and enter a keyword that describes what you're looking for in the white "Search" box near the top right on the home page. You can enter words like Christmas, Holidays, Thanksgiving, or other special days, for example, to find a list of projects centered around your desired theme. If you're trying to find the perfect gift for animal lovers, the sports minded, or people with some other particular interest, try those types of keywords. There is a virtual treasure trove with hundreds of patterns available to purchase on the *GPQ* website. If you enter "free patterns," you'll even find some of those as well.

You've been warned. It's time to make your list and start in on the fun of creating and giving during this festive time of year. It's never too early.

Happy glassing,

Delynn Ellis

Delynn Ellis

Managing Editor



Fall Splendor Accent Piece
by Alysa Phiel

Upcoming Submission Deadlines

Spring 2019	<i>Glass in the Garden - Glass Flowers, Planters, Birdbaths, and Garden Art</i>
Editorial	November 1, 2018
Ad Closing	January 20, 2019
Ad Materials	January 30, 2019

Summer 2019	<i>Slice of Summer - A Nostalgic Look at Scenes of Summers Past and Present</i>
Editorial	February 20, 2019
Ad Closing	April 20, 2019
Ad Materials	April 30, 2019

Glass Patterns Quarterly

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Above: Turkey Candle Shelter by Lisa Vogt.

On the Cover: Holiday Cheer plated stained glass panel by Chantal Paré.
Details of Fused Glass Holiday Trees by Jim Matthews,
Spider by Dennis Brady, and
Mixed Media Pumpkin by Mary Hong.

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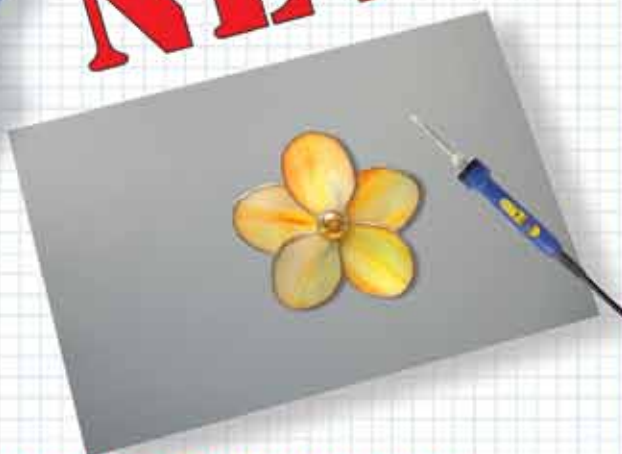
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Just a Little Flurry

Design, Fabrication, and Text by Tamara Phillips

Photography by Stephanie Ulibarri

I've lived in Albuquerque, New Mexico, most of my life. We don't get much snow here, and when we do, it doesn't last very long. There is an elegance to it that inspired me to create snowflakes in glass instead so they would last forever.

I have used lots of different wire patterns and geometric shapes to create many different designs over the years. For this tutorial, I have included four of my favorite designs using as many of the same shapes and wirework patterns as I could to show the variety you can achieve. Once you get started, the only limit is your own imagination.

If you attended the Glass Craft & Bead Expo, you may have seen my installation titled *Frozen Fractal Fantasy* that won third place in the Gallery of Excellence. Here is a sample of how to make snowflakes similar to those so that you can make your own fractal flurry.

Glass

Clear Seedy or Other Glass of Choice, 32 Sq. In.
1/2" Colored Cabochons, 18

Tools and Materials

Glass Scoring Tool Running Pliers
Permanent Marker

Ruler and Protractor and/or Morton Cutting System

Grinder Fid Wire Cutters/Nippers

Needle Nose Pliers Chain Nose Pliers

Angled Forceps 18-Gauge Tinned Copper Wire, 12 Ft.

7/32" Silver-Backed Copper Foil

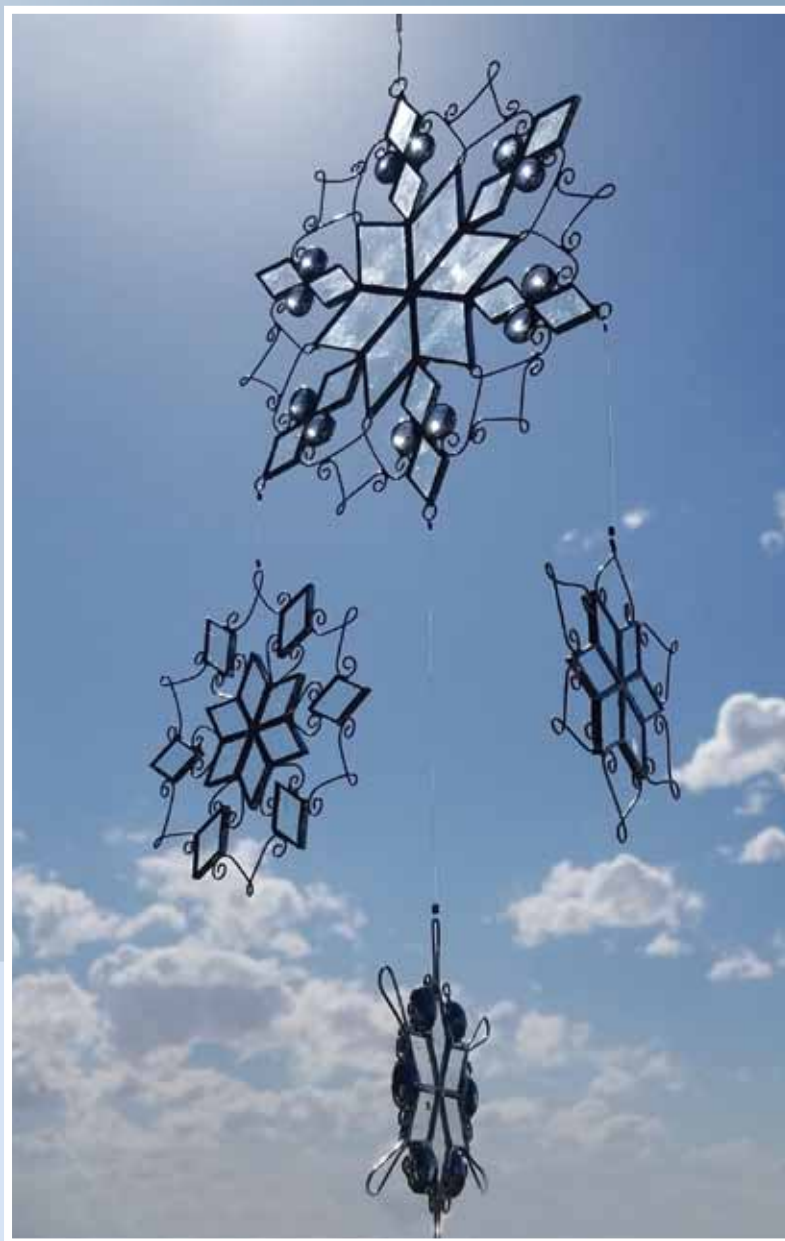
60/40 Tin/Lead Solder Safety Flux

Dish Soap 12 Silver Crimp Beads

30-Pound High-Strength Fishing Line

Soldering Iron Steel Head Pushpins

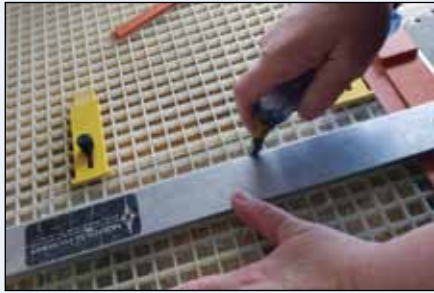
Flux Brush or Cotton Swab



Getting All the Parts Together

Mark one 1" x 8" strip and four 5/8" x 8" strips of the clear glass.

1



You can use either a ruler or a Morton Cutting System to measure the strips. Score and break the glass into strips.



2

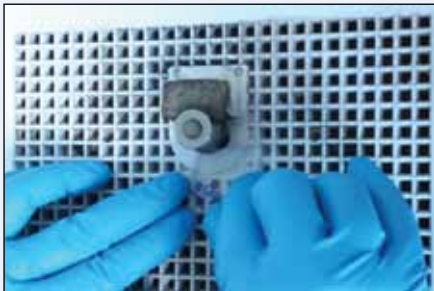


Mark angles on the strips for the glass and cut out the diamond shapes.

If you are using a ruler and protractor, mark out 60-degree angles to create diamonds in all 5 of the strips. Score and cut the diamonds. If you are using a Morton Cutting System, follow the directions for your cut surface to create 60-degree diamonds. You can also use the pattern provided for each size diamond if you prefer. Please keep in mind that this is just an example. You can cut as many diamonds from your strip as possible if desired.

Grind each diamond to remove any sharp edges and create a good adhesive surface for the copper foil.

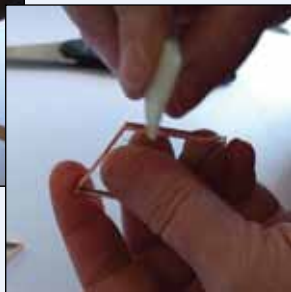
3



Be sure to wash the glass after grinding to remove any residue.



4



Foil each diamond and the 1/2" glass cabochons with the 7/32" silver-backed copper foil.

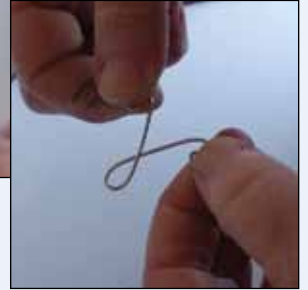
Use a fid to burnish the edges of the foil.

5

Using the wire cutters/nippers, cut six 5" lengths, twenty-four 4" lengths, and six 3" lengths.



6



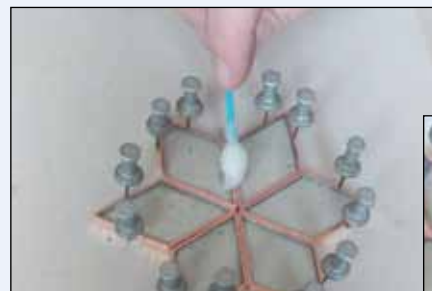
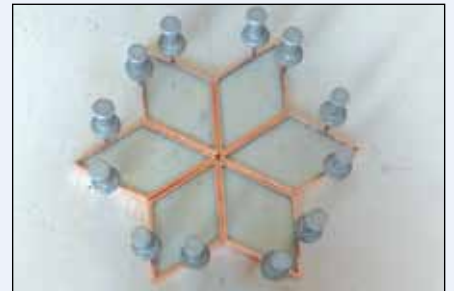
With the needle nose pliers, turn the wires into the shapes in the pattern provided.

You will also need three 1/4" rings and one 1/2" ring for hanging.

Assembling the Large Snowflake

7

Arrange six 1" diamonds and pin the diamonds to the hot board using the steel head pushpins.



8



Apply flux to the copper foil with a brush or cotton swab and tack-solder the diamonds together.



9

Remove the pins and complete the solder joints on both sides of the center structure, then tin the edges.



10

Assemble 6 spires using 12 of the 5/8" diamonds and 12 of the 1/2" cabochons.



11

Attach each spire between the points of the center structure.



12

Using the forceps to steady the piece, apply flux to the appropriate wires and solder them in place.



13

Attach the 1/2" ring to the top (outer point) of one of the spires and the three 1/4" rings to the opposite spire and the adjacent spires.



Set the large snowflake to the side.

Assembling the Small Snowflakes

Arrange six 5/8" diamonds for each snowflake and pin the diamonds to the hot board using the steel head pushpins. Use a brush or cotton swab to apply flux to the copper foil and tack-solder the diamonds together. Remove the pins and complete the solder joints on both sides of the center structure, then tin the edges.

14

Begin to add details to small snowflake number 1.



For snowflake #1, pin the remaining six cabochons between the points of the center structure, solder both sides, and tin the edges as usual. Using the forceps to hold the snowflake, apply flux to the appropriate wires and solder in place, then set the piece aside.

15

For small snowflake number 2, tin the edges of the remaining six 5/8" diamonds.



16

Apply flux and solder to the first set of wires between the points of the center structure.



17

Pin the remaining six 5/8" diamonds between the curls of each wire and solder.



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18
Apply flux
to the appropriate
wires, solder in place,
and set the piece aside.



19
Apply flux
to the appropriate
wires and solder
in place.



Cleaning and Final Assembly

Using a toothbrush and your preferred dish soap, wash each of the snowflakes and dry with a clean towel. To attach the smaller snowflakes to the large flake, you will use the 12 crimp beads, the fishing line, and your chain nose pliers. Cut the fishing line into manageable lengths. I cut one 3", one 5", and one 7" length.

20
Begin to
add the crimp
beads and shape
the lengths of line.



String 2 crimp beads onto the end of the 3" line and string the line through the first 1/4" ring on the large snowflake, then back through the two crimp beads.

21
Crimp the
beads with the
chain nose pliers,
creating a loop
around the 1/4"
ring.



On the other end of the line, string 2 more crimp beads, string the line through the wire loop on small snowflake #2 as shown, and back through the crimp beads. Adjust the line to measure 1-1/2" in length and use the chain nose pliers to crimp the beads, creating a loop around the wire accent on the smaller snowflake.

22
Finish by
connecting small
snowflakes number
1 and number 3
to the piece.



Using the 7" line, connect small snowflake #1 to the center 1/4" ring on the large snowflake in the same way for a final length of 6". Finally, use the 5" line to connect small snowflake #3 to the last 1/4" inch ring on the large snowflake in the same way for a final length of 3-1/2".

GPO

Tamara Phillips is a stained glass artist residing in Rio Rancho, New Mexico. Most of her life she has had a love affair with glass, particularly stained glass. Tamara works on a smaller scale, since much of the larger stained glass pieces are very costly, and she believes that everyone deserves to have beautiful glass art. She works in the traditional Tiffany style, doing everything by hand with the use of hand tools, and doesn't use a saw of any kind or any automatic tools. Since each piece is handmade, it is a one-of-a-kind keepsake. Tamara's pieces include suncatchers, candleholders, night-lights, water prisms, and mobiles, in many different styles and designs.



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CS-5630 Dimensions

- Exterior with top closed: 70 1/2" W x 53" D x 52" H
- Exterior with top raised: 70 1/2" W x 63" D x 76" H
- Interior: 56" x 30" x 17" (15 1/2" deep when measuring from quartz tube surface)
- Flat load floor, 30" from ground level

Introducing the Paragon CS-5630 clamshell kiln with quartz tubes

Deluxe quartz tubes

Imagine the huge glass pieces you could make inside the new Paragon CS-5630. Enjoy complete access to your artwork from the sides and front. Add delicate stringers or frit without having to move the shelf into the kiln later.

The roof elements are protected in 10 quartz tubes for a cleaner kiln interior. There is less dust in the kiln, because there are no element grooves in the top.

Heat from the top, walls, and floor

The CS-5630 is 56" x 30" x 17" high. With elements in the floor, walls, and roof, you will enjoy unsurpassed heat distribution. The digital controller uses Power Ratio technology to vary the heat output between the top and bottom elements.

Extra insulation and woven gasket

Lift the kiln top section with handles in the front and sides and with assistance from gas springs. The roof is 3" thick ceramic fiber, and the walls are 3" firebrick backed by 1" of ceramic fiber board (4" of total wall thickness). The extra insulation helps to maintain even temperatures. A woven gasket between the kiln top and floor helps to hold in the heat. The floor

surface is a convenient 30" high from ground level. The 4 1/2" thick firebrick floor includes two expansion joints.

Watch the glass through 2" x 3" peep-holes mounted in the left and right sides. The kiln includes locking casters.

Motorized vent for firing molds

If you fire molds, you will welcome the motorized Orton Vent Master, which is mounted in the back wall of the kiln. The vent, mounted on rubber isolators to prevent vibration, removes moisture from the kiln to reduce rust. The vent is standard on the CS-5630 and plugs into an auxiliary output in the back of the kiln. This allows you to turn on the vent through the digital controller.

Low maintenance

Deluxe, long-lasting mercury relays are standard. Gain convenient access to the electrical components by removing a single panel. The kiln includes access panels for replacing quartz tubes.

Rugged

The CS-5630 is the very picture of ruggedness. A ledge in front of the kiln protects the brick floor from damage caused by leaning into the kiln. The digital controller is mounted away from the

heat for long life. The kiln base is welded from 2" x 2" steel tubing; the upper kiln frame is welded from 1" x 1" steel tubing.

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Order your CS-5630 with the optional Sentinel Smart Touch controller. The Sentinel can check the voltage and amperage and can be programmed with easy-to-follow screen descriptions.



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Better
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Geometric Bird Feeder

Design, Demonstration, and Text by Lidia K. Anderson

As winter approaches, wild birds begin to look for new sources of food. I grew up in Sydney, Australia, where the variety of exotic birds was endless. We saw everything from kookaburras, magpies, and parrots to small finches and sparrows. We always had food ready for them, and I never got tired of watching them. I hope that making this 9" x 9" feeder and watching the birds it attracts will bring you just as much pleasure. This feeder would also make a great gift for your bird loving friends.



Glass

Clear Float, 2 Sq. Ft.

Desired Color of Opalescent, 1 Sq. Ft.

Tools and Materials

Flux Lead Free Solder Glass Cutter

1/2" Silver-Backed Copper Foil

Temperature Controlled Soldering Iron

Safety Glasses Mirror Grinding Bit

Zinc Plated Medium or Large Jack Chain

Rubbing Alcohol Polishing Compound

Carpenter's Square

1

Measure, cut, mark, and grind the clear float glass pieces.



Cut 8 pieces of clear glass to measure 2-1/4" x 7". Mark at 3-1/2" on the long side to find the center. Mark 2-1/4" on either side of the center line at the top, draw the lines from the edge point, and cut as shown.

Use a mirror grinding bit to grind the edges of the glass, then wash and dry thoroughly. I like to wipe the edges of the glass with rubbing alcohol.

Foil and burnish all 8 pieces of the clear float glass from step 1.

2



Cut four 1-1/2" x 1-1/2" squares from the clear glass, then cut each square in half diagonally to get 8 triangles.

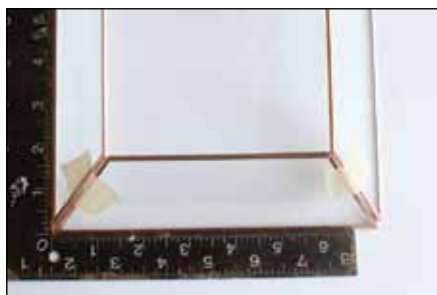
3



Mirror-grind the edges, then wash and dry. Foil and burnish all of the glass pieces, then set them aside.

Arrange 4 pieces of glass from step 1 into a right-angled square, with the long sides resting on the table.

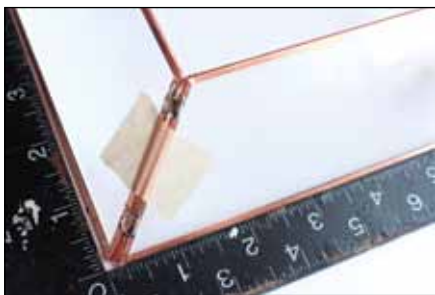
4



Tape the outsides of the corners.

5

Flux and tack-solder the top and bottom of the seams to secure the unit.



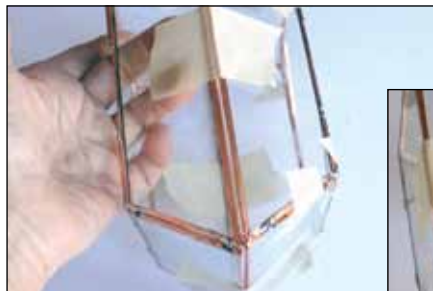
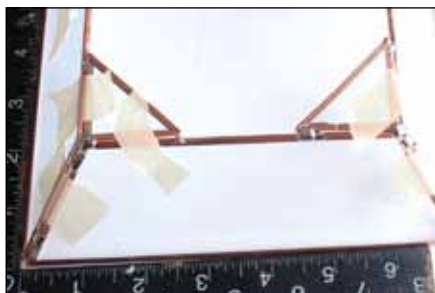
Arrange the 1-1/2" triangles on top of the unit and tape them into place, making sure that everything is in square.

6



Flux and tack-solder the corners into place.

7



Repeat steps 4 and 5 with the remaining 4 large pieces of glass.

8



Turn the piece on its side and tape the units. Flux and tack-solder the units together, checking to make sure you have a proper fit. Since these are only tack soldered and still somewhat flexible, you will be able to mold the angles slightly where the pieces meet to get the units to fit together properly.

9

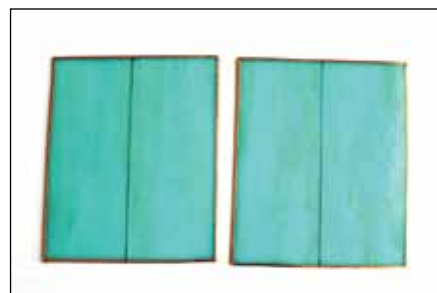
Bead-solder the seams of the piece, inside and out.



Turn down the temperature of the soldering iron and bead-solder the entire inside of the unit. Bead-solder the outside except for the 2 adjoining right angles where the roof will be attached. Mark those sides, since they should be tin-soldered as flat as possible.

10

Prepare the opalescent glass.



Cut 2 pieces of opalescent glass for the roof measuring 6" x 7-1/4" each. Mirror-grind the edges, wash and dry the pieces, then foil and burnish. I like using opalescent glass for the roof to provide a little extra shade for the birds and the seed, but you can make it out of clear glass as well if you like. On the underneath side of the glass, mark a line in the center lengthwise.

With the long sides of the glass down, position the roof in a carpenter's square and tape around the seam where the two glass pieces meet.

11



Position the feeder unit into the roof with the flatly tinned sides of the feeder against the pieces of roof glass.

12



Flux and solder generously into the corner of both sides as well as the edges.

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13

Use a pair of round needle nose pliers to make a loop in the 2" piece of wire for the hanger.



14

Position the hanger into the center of the seam and solder it in place.



Finish the project by bead-soldering all the edges of any exposed foil. Wash, dry, and polish the feeder with your favorite compound. Attach the chain and fill with bird food. It's best to not patina the feeder, since that is toxic to the birds.

Now that your bird feeder is finished, you will be able to enjoy watching the birds in your own backyard. I hope you enjoy your summer too.

GPO

Lidia K. Anderson of L.A. Glass is a native of Sydney, Australia, and it was there that she began her formal education in art. In her second year of college, she moved to the United States and received her BFA from Bowling Green State University in Ohio.



Lidia spent the next ten years as art director in the field of television. Recognizing the stresses of the advertising world, she took the opportunity to find other forms of artistic expression. Her love of glass was born, and she allowed this creative energy to guide her. What evolved were works of art that integrated into a more common understanding of functional living.

The larger body of Lidia's work is represented by some of the finest art galleries in the nation. She has had the privilege of exhibiting with the world-renowned artist, Dale Chihuly, and has also completed a restoration of eighteen stained glass windows at a chapel in Ohio. To view more of her work, visit www.etsy.com/shop/LAGlass.

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Double the Holiday Cheer

An Introduction to Plating

Design, Fabrication, and Text by Chantal Paré



*“Then all my troubles will be gone.
Oh, Christmas lights, keep shining on.”
—Coldplay*

One of Louis Comfort Tiffany’s signature techniques in the creation of his magnificent stained glass windows was the use of multiple layers of glass to create depth and shadows. That technique is the inspiration for *Double the Holiday Cheer*, a 12" x 19" window that features two panels of glass, the front one in sharp focus and the back one seen through semitransparent glass that makes it appear blurry and creates an illusion of depth. As lighting conditions change during the day, its aspect will be ever changing

and will even look different depending on whether it is viewed from outside or inside your home.

The glass used to create this effect is Youghiogeny’s SP-1000 Clear Stipple glass. Its transparency lets all the light through, but its sandy inner structure diffracts the light to create a very bright, cool white semiopaque effect. Wire decorations add a festive touch and leave room for your creativity. The panels are bound together with screws for convenience of cleaning between the panels.

Wissmach Glass Company

EM6 Pink English Muffle for Lights, Scrap

EM190 North Sea Blue English Muffle for Lights, Scrap

EM218 Light Violet English Muffle for Lights, Scrap

1146 Medium Yellow Green Corella Classic for Lights, Scrap

DR-319 Dark Yellow Green Double Rolled
for Light Sockets, 1/2 Sq. Ft.

FLEM-343 Medium Green Flemish
for Fir Branches, 1 Sq. Ft.

DR-18 Light Orange Double Rolled
for Christmas Balls, 1/2 Sq. Ft.

H-18L Orange Hammered Cathedral
for Christmas Balls, 1/2 Sq. Ft.

Yellow Cathedral for Lights, Scrap

Orange Cathedral for Lights, Scrap

Medium Amber Cathedral for Christmas Balls, Scrap

Youghiogeny Glass

SP-1000 Clear Stipple for Background, 3 Sq. Ft.

Tools and Materials

Fine Black Marker Glass Breaking Pliers

Oil-Filled Carborundum Wheel Glass Cutter

7/32" and 3/16" Black-Backed Copper Foil

60/40 Solder Soldering Flux Flux Brush

2 Strips 1/2" Zinc U-came Miter Saw

Pretinned Copper Wire Soft Mallet

Masking Tape Flux/Patina Remover

14-Gauge Pretinned Copper Wire

Acetone Nail Polish Remover

Pliers Screwdriver Dremel Drill

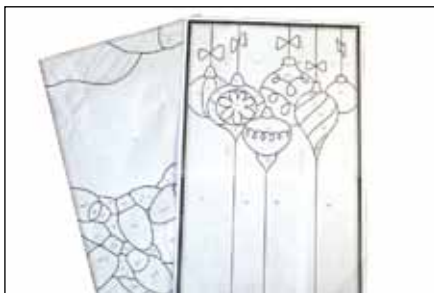
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Print the
pattern to the
final size and
number the
pieces.

1



Place the
transparent
glass over the
pattern and trace
each piece with a
permanent marker.

2



Using an
oil-filled
Carborundum
wheel glass cutter
and glass breaking
pliers, score and
break the glass.

3



Smooth all
of the edges
to fit the pattern
with an electric
grinder.

4



Wrap all of
the glass edges
with black-backed
copper foil.

5



Carefully crimp the edges over with the sides of small craft scissors or a fid. Choose a width of foil matching the thickness of the glass so that the crimp above and below is under a millimeter. Next you will be fabricating the Christmas ornament decorations with copper wire.

Evenly wrap
the copper wire
around cylindrical
shapes of varying
diameters such as
pens and markers
to form a coil.

6



Slip the
coils off of
the cylinders and
slowly stretch them
out while continuously
pressing them down
to keep the coils flat.

7



Once the shape resembles that of the pattern, flatten the coils further with a soft mallet. You will also need to fabricate bows by bending the wires. Use pliers when necessary to make very sharp bends with the copper wire.

8

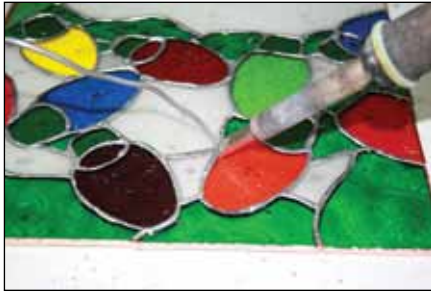
Add solder to fill the spaces inside the loops or to emphasize the joints.



To emphasize the edges of the bows with solder, first add drops of solder to the four corners of the bow. Let cool completely, then add solder to the space in between, working quickly and taking care to not melt the corners since they anchor the newest addition of solder.

9

Solder the glass pieces.



Make a jig using a carpenter's square for right angles and place the pattern and the foiled glass pieces within it. Brush the copper foil lines with flux, one small area at a time, and solder the glass pieces, taking care to make a nice bead over each line. Leave some space around the edges of the project free of solder so you will be able to slip the zinc frame on later. Flip the project over and solder the other side. Repeat for the second panel.

10

Solder the Christmas ball decorations to a lead line according to the pattern.



The needle decorations on the fir branches will need to be attached to the zinc frame later in step 12.

11

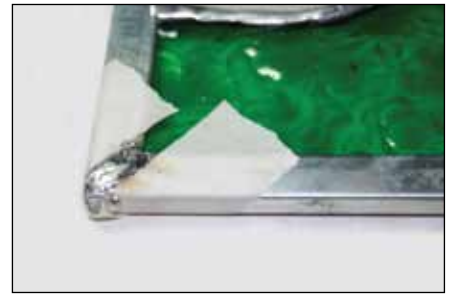
Cut the zinc came with a manual or electric miter saw to create a frame around each panel.



Be especially careful to make both frames exactly the same size so that the edges line up when you attach both panels together.

12

Use masking tape as resist to ensure straight solder edges at the corners, then solder all of the corners.



Do not make a high bead on the corners that will be facing the space between the two panels to ensure that they will be as close together as possible. Tack-solder all of the lead lines that join the frame. Cut lengths of tinned copper wire representing the fir needles and solder them to a lead line and the zinc frame.

13

Clean the panels, first with soap, then with flux and patina neutralizer.



Remove any trace of the marker still on the glass using a bit of acetone nail polish remover.

14

Join the two panels.



Indicate the centers of the top and bottom lengths of the top panel zinc frame with a marker. Place the top panel flat on the bottom panel and secure in a jig. Using a minuscule 1/32" drill bit, drill a hole where you made a mark through the hollow part of the zinc frame where there is no glass, going through both panels. Increase the hole diameter by drilling first with a 5/64" bit, then finally with a 7/64" bit.

15

Pass a screw through the holes and fasten with screw nuts.



Add hooks for hanging the panel.



Fold over two 2.5" lengths of pretinned copper wire to form hooks and solder them in the grooves of the uppermost joints in the frame to create loops for hanging the panel. **GPQ**

Two decades ago, Chantal Paré quit the fast-paced world of molecular biology to devote herself to the full-time pursuit of glass. She's liable to melt it, blow it, break it, paint it, or cast it, sometimes just to show it who's boss. Nothing else comes close to creating an object through which light can pass the same way it does through water. In her free time, Chantal draws patterns in a variety of styles ranging from Victorian to geometric and self-publishes them on the Internet. Lately, she's concentrating her efforts on glass painting.



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Christmas Moose

Design by Christine Harris, Text by Darlene Welch

For all of you who love having the moose as part of your home decor, this cute little guy will bring feelings of warmth and cheer to your Christmas gatherings. This 7-1/2" x 10" stained glass free-form panel from Mary Harris, built using a pattern by her daughter Christine, makes wonderful use of Light Brown Opal and Dark Amber Streaky colors to capture his furry winter coat and hallmark moose antlers. The design is topped off with his brightly colored hat that he borrowed, no doubt, from Santa himself.

As you plan the holiday gifts you will be creating for friends and family, be sure to visit bestglasspatterns.com, where you can find more patterns by Mary and Christine, for ideas and inspiration. You'll also find more about Mary and her innovative glass art designs at harrisartglass.com. **GPQ**



Wissmach Glass Company

77-L Light Brown/Yellow Green/Light Opal for Moose, 1 Sq. Ft.

145-SP Dark Amber/Opal/Crystal Streaky for Antlers, Scrap

WO-28 Orange/Opal Wispy for Hat, Scrap

51-L White Cast Opal Translucent for Hat, Scrap

51-LL White Cast Opal Very Translucent for Eyes, Scrap

Tools and Materials

7/32" Copper Foil Flux Solder
Black Patina 1/4" U-Channel Lead
Copper Sheet Foil

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Greenman Mosaic Suncatcher

Design, Fabrication, and Text by Dana Worley



As the days grow shorter, the leaves begin to turn their golden colors of fall. The air is clear and crisp, and our thoughts turn to walks in the woods. Leaves crunch underfoot, and wood smoke fills the air. This fused glass Greenman Mosaic project is a perfect way to bring the joys of autumn inside.

At fused glass retailers and online, you can find many molds for casting, slumping, and applying texture to your glass. The challenge for a glass artist is to find ways to take these off-the-shelf products and create something unique.

I have several texture tiles, including a Greenman from Creative Paradise. I love the look of this woodland fellow peeking out from behind glass. I wanted to create a piece using this texture tile that would be different and unique, so I decided to create a fused glass mosaic. This design uses the 7" Greenman texture tile and a drop-out mold together to form the final mold for the fused piece.

Glass

11" x 11" Clear Glass, 1

1-1/2" Squares of Patterned Colored Glass, 24

6-1/2" Square Bronze Transparent Irid, 1
(or any transparent glass that matches your colored glass)

1/2" x 1" Rectangles of Vanilla Cream, 16

1/2" Squares of Vanilla Cream, 4

Medium Clear Frit

Dark Opal Fine Frit

Tools and Materials

ZYP® Boron Nitrite Mold Release Spray

Hair Spray 1/8" Strips of Fiber Paper

Small 7" Greenman Texture Tile from Creative Paradise

12" Square Drop-Out Mold

Two Pieces of High-Temp Wire, approximately 1-1/4" each

White Glue 4 Bump-Ons

Picture Wire or Fishing Line for Hanging



1

Gather the glass and supplies and prepare them for use in the project.

Prepare the texture tile using the ZYP spray. With a texture mold like this, I spray lightly from top to bottom, rotate the piece a quarter turn and spray again. Then I rotate and spray two more times so that I have sprayed a light coating from all four directions. Now kiln-wash the 12" drop-out mold.

Put the 11" clear glass on a work surface and begin placing the 1-1/2" squares of the patterned colored glass around the outside perimeter.

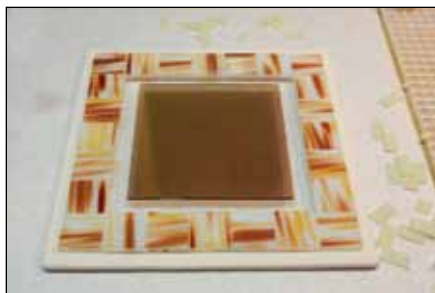
2



When doing mosaics, I like to secure each tile with a drop of hair spray. Start with the four corners, then evenly place five tiles on each side. Working on top of the drop-out mold will help with placement of the pieces. There will be only a little room between each tile once they are all placed. For more visual interest, alternate the direction of the pattern with each piece, like a basket weave.

3

Place the 6-1/2" square of bronze irid in the center.



Position the glass, irid side up. You could also place it irid side down for a subtler irid effect.

4

Place one of the four 1/2" squares in each of the four corners between the outside tiles and the larger center piece.



Evenly space the vanilla cream rectangles around the edges.

5

Once all the tiles are in place, fill the gaps around the vanilla cream with the clear medium frit.



When fired, the clear frit will create a nice mottled texture. Use a frit scoop or small spoon to place the frit, then use a dry paint brush to carefully brush away any loose frit from the top of the glass tiles, especially the irid, since clear on top of the irid will change the appearance of the glass.

Fire this piece on a prepared kiln shelf, either kiln-washed or covered with shelf-paper. Following is the schedule I used in my kiln. The schedule may need to be adjusted for your kiln.

Firing Schedule 1

Segment 1: Ramp 300°F/hr to 1100°F and hold 30 min.
Segment 2: Ramp 300°F/hr to 1350°F and hold 20 min.
Segment 3: Ramp 9999 (AFAP*) to 950°F and hold 120 min.
Segment 4: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

6



Place colored fine frit on the texture mold, using a frit scoop to help with the placement of the color.



The idea is to add shading that will help the Greenman stand out when the piece is finished, so the frit is placed mostly in the crevices of the texture tile. If needed, use a dry brush to carefully brush the frit into the recesses of the tile. Be careful not to disturb the ZYP coating.

7

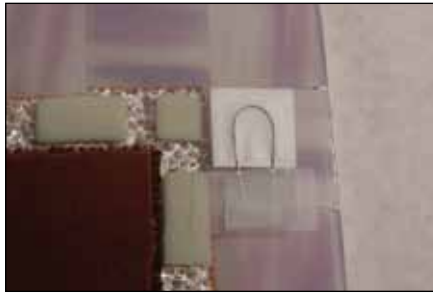
Place the texture tile and the drop-out ring in the kiln directly on a kiln shelf.



Place 1" strips of 1/8" fiber paper along the edges to cover the gap between the texture tile and the drop-out ring. The strips are laid loosely on top. This is done as a precaution to prevent the glass from slumping too far over the sides of the texture tile, which would cause the glass to crack when it cools.

8

Add hangers
to the back of the
fired glass.



Cut two pieces of high-temp wire and bend them into a U shape. On the back of the prefired piece, use white glue to glue two squares of 1/8" fiber paper where you want to place the hangers. Place the wire loops on top of the fiber paper, allowing the "tails" of the wire to touch the glass below, then place a strip of clear glass over each tail. Use clear tape to hold the glass and wire in place. Don't worry. The tape will burn off in the kiln. During the final firing, the clear glass will melt and secure the wires. The fiber paper separates the loops from the glass below.

9

Place the
prefired glass,
right side up, on
top of the molds
and fire.



I used the following schedule. You may need to adjust it for your own kiln. Note that the firing schedule is like the first, but with a more conservative ramp and a longer annealing time. The longer anneal was for several reasons, including the potential for heat differences because of the two molds, the gap covered with fiber paper, and the hanging wires in the glass.

Firing Schedule 2

Segment 1: Ramp 200°F/hr to 1100°F and hold 30 min.

Segment 2: Ramp 200°F/hr to 1350°F and hold 15 min.

Segment 3: Ramp 9999 (AFAP*) to 950°F and hold 150 min.

Segment 4: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

This design works best when the Greenman is backlit, so it is perfect for displaying in a window. To hang, use heavy fishing line, picture hanging wire, or chain like the kind used for stained glass to string between the two fired-in hangers. If the piece will touch the window or wall on which it is hung, place bump-ons at each of the four corners of the bronze glass.

GPO



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Dana Worley, an emerging kiln formed glass artist, began her glass journey in the early 1990s working in stained glass. With a desire to create beads for jewelry in 2009, she discovered fused glass and has pursued this artistic avenue with a passion ever since. While not formally educated in art, Dana has studied under some of the finest glass artists from around the world and continues to refine her skills.



A current focus of Dana's is working with frit and powdered glass to create color, texture, and design elements for her glass art. She draws her inspiration from the natural world and loves colors and designs that reflect the beauty found in the foothills of beautiful Northern Utah where her home studio is located. Her work has been on display in art galleries and juried shows throughout the state.

Dana serves as a board member and Web master for the Glass Art Guild of Utah and maintains a blog on fused glass at jestersbaubles.blogspot.com. In her full-time job, Dana works as a Project Manager for a scientific instrumentation company. When she's not pursuing art or working, she enjoys spending time outdoors hiking, biking, and taking pictures.

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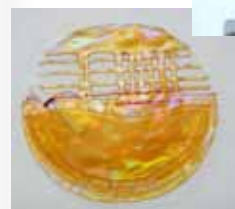
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Ghoul Cat

Design and Text by Leslie Gibbs



Wissmach Glass Company

Black for Cat, 1 Sq. Ft.

36-L Light Opal/Salmon for Ears and Nose, Scrap

57-LL Medium Green/Opal/Crystal Streaky for Eyes, Scrap

51-DDXXMSP Light Opal/Crystal

for Chest, Face, and Tail, Scrap

237-D Cobalt Blue/Dark Purple/Dense Opal
for Wings, Scrap

199-LL Medium Amber/Dark Amber Brown Streaky
for Table Top, 1/2 Sq. Ft.

315-D Medium Amber/Dense Opal for Skull, Scrap
71-L Dark Brown/Green/Light Blue/Light Opal/Crystal

for Table Crack and Skull Eyes and Nose, Scrap

44-L Burgundy/Crystal Rough Rolled Streaky
for Background, 1 Sq. Ft.

145-GSP Dark Amber/Opal/Crystal for Moon, 1 Sq. Ft.

Tools and Materials

7/32" Copper Foil Flux Solder
Black Patina 1/4" U-Channel Zinc
Copper Sheet Foil or Black Paint
17-Gauge Wire

Usher in the witching hour with this ghoulish feline that is certain to spook up your home! This eerie 10-1/4" x 10-3/4" scene lit by a golden autumn glow lightens a darkening sky on All Hallows Eve and may well become your favorite Halloween treat. Here are a few tips on how to conjure up and construct this furry fiend.

- The black detail of the cat's glowing eyes can be created using black hobby enamel or by fusing. Enhance her stare by using solder fill around the eyes. When the panel is complete, an application of black patina will give her that "cat eye" look so popular today.
- The nose and eye sockets in the skull can either be fused onto the skull with thin black glass, painted onto the skull with black hobby enamel, or even added by fusing black decal paper onto the skull, whichever method suits you and your skill level, or should I say "skull level."
- The spider web should be fabricated separately using 17-gauge wire. After the panel is finished and patina has been applied to the entire panel, attach the web onto the panel by soldering it at the points where it meets the skull and border. The web should remain silver and will stand out slightly from the panel.
- The cat's whiskers are also fabricated from a slightly thinner 20-gauge wire and also added after the panel is complete and patinated so that the whiskers remain silver.
- Add a zinc border and hanging hooks to the panel, and you've completed a feline certain to chase away any spooky shadows. I hope you enjoy this project, although maybe I should have used a ghost writer!

With a main focus in drawing and painting, Leslie Gibbs enjoys transforming her more traditional artwork into glass. Charmed by both wildlife and the creatures of the sea, she often depicts the real along with the fanciful denizens of these worlds in her design and pattern books.



Leslie and Jon are longtime Florida residents. They currently live and work in a small beach town in Northern Florida, having forsaken the Badlands of South Florida for a more peaceful lifestyle featuring more wildlife and less concrete. A relentless jokester, the artist tackles life's common absurdities with a wicked sense of humor and a relaxed attitude. Visit www.facebook.com/lesliegibbsstudio to learn more about Leslie and her art.

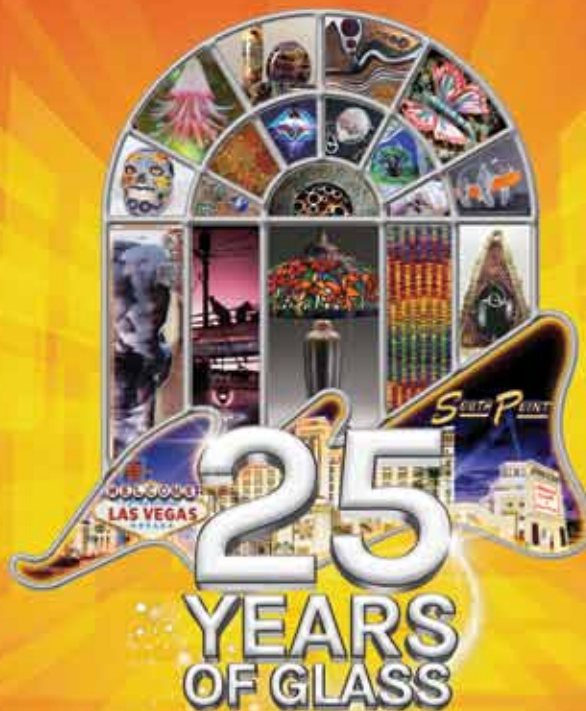
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Fall Splendor Multitechnique Accent Piece

Design and Fabrication by Alysa Phiel, Text and Photography by Jane McClarren

Fall is just around the corner, and what better way to celebrate than to capture its colorful inspiration by creating this special dish. We will show you how to make one-of-a-kind leaves with hairspray and mica powder. Then we'll add additional dimension with glass paint, frit, and dichroic extract. The final product will be slumped in a serving dish mold to create an interesting shape so you can use it in your fall centerpiece or display.



96 COE Glass

Clear Glass

for Bottom Layer

Medium Frit in Autumn Leaf Colors

Tools and Materials

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High-Quality Respirator Scissors

Papyros™ Kiln Paper, Scrap

Glass Paints in Autumn Leaf Colors

Medium Paint Tip Pump Style Hair Spray

Clear Gel Glue Mica Powders

1/4" Soft Paint Brushes Pencil

Leaf Stencils/Scrapbooking Punches

SM-9504 Slumpy's Mold or Mold of Choice

Small Cups or Containers

Flexible Copper Sheet or 16- to 18-Gauge Copper Wire

Flat Nonstick Surface

Tweezers/Straight Edge/Spatula

CBS Dichroic Extract (optional)

Bullseye GlasTac glue (optional)

1

Using a pencil or marker, trace the leaf stencil or draw your own leaf design directly onto a scrap of Papyros kiln paper.





2

Create the leaf shape.

Create the leaves in one of two different ways. For a softer, more organic and natural edge to the leaf, tear the kiln paper along the outline. Do not worry if the rips are not perfectly following the leaf outline. For a crisp, precise looking leaf, use scissors to cut out the leaf pattern.



3

Wet the leaf with pump hair spray.



Once you've created a leaf, place it on a nonstick surface such as wax paper, a silicone mat, or a plastic lid. Saturate the kiln paper leaf with pump hair spray, soaking the kiln paper entirely. Make sure you get the edges wet as well. The hairspray provides an adhesive for the mica powder once it has dried and protects the mica powder from burning off when the glass is fused. Always use a high-quality respirator when working with mica and frit.

Select a mica powder you would like to start with. We used a variety of metallic colors including gold, brown-green, fruit punch, red-green, and bronze. You can create brighter autumn leaf colors using bright colored micas, such as yellows, oranges, and red instead of metallic ones.

4

Mix the mica powders with hair spray.



Use a small cup/container or the lid of your mica powder for mixing. Spray hair spray into the container or lid and add mica powder. Dip the paintbrush into the hairspray to wet it. Dip the paintbrush into the mica powder to gather up mica powder to mix into the hair spray in the container. Mix the mica powder and hair spray until you get a thick, creamy consistency, adding more mica powder or hairspray as necessary.

5

Paint the mica directly onto the kiln paper leaf.



Keep the kiln paper saturated with hair spray as you are working. You will want to use more than 1 color of mica paint on each leaf. You can partially paint the leaf and complete with an additional color or you can paint the entire leaf with one color and add an additional color in a second layer.

Mix up the additional colors of mica powder in the same manner as above. You can use a different paint brush for each color or the same brush and create blended colors on the leaves.

6

Paint the additional color onto desired areas, or you can dab the paint onto different spots on the leaf.



Have fun changing out color and pattern combinations. It is important to continue to spray the leaf with hair spray as you are working. You want a very wet surface when working with the micas, allowing them to bleed into the kiln paper. Adding hair spray causes the mica color edges to blend and swirls the paint. You can also blow on the surface or use a hand fan to move the mica colors around. The pencil marks on the kiln paper will burn off, but be sure to cover the white edges of the leaf with mica.

Once you are happy with the mica colors on your leaves, allow them to dry completely. If necessary, use a spatula or straight edge to carefully lift the leaf off of the surface to keep it from sticking. If you are setting the leaves on a translucent glass, once they are dry you can also paint the reverse side of the leaves so the underside of your project is pretty as well.

7

Add the vein lines on the leaf.



Use the medium glass paint tip and your choice of glass paint to test the paint on a piece of scrap paper or paper towel. You want to be sure you are getting a clean, continuous line of paint when using it on the leaf, since you cannot easily wipe off the paint. Once you are comfortable with the paint lines, draw a line of paint down the center of your leaf. Create additional leaf veins by dragging the paint from the center vein outward toward the edge, squeezing out

more paint if necessary. We used brown or red-orange glass paint on these leaves. Allow the paint to dry completely.

If using dichroic extract, squeeze about 1/2 teaspoon of GlasTac glue into a cup or container. Place a small amount of water in another container for cleaning your brush. Use a clean paint brush and dip it into the GlasTac glue, then gather up a small amount of extract from the jar or the inside of the extract jar lid. When done using the dichroic extract, allow the water in your brush container to evaporate and the blend of the extracts at the bottom of the container can be used later. There is no waste with dichroic extract. It is manufactured by Coatings by Sandberg and can be found on their website or through other glass suppliers

Add the dichroic extract to your leaf by painting in specific areas or pat the paintbrush in areas for a mottled effect.

8



The GlasTac keeps the dichroic extract adhered to the mica surface once the extract dries, so be sure to dip your brush into the GlasTac before adding more dichroic extract. Allow your leaves to dry completely before placing them on the glass.

9

Determine the arrangement of your leaves.



It is not necessary to glue them into place if you are capping your project with clear glass.

10

After arranging the leaves, sprinkle frit in any desired areas on the glass and on top of your leaves.



The frit adds to the background and leaf patterns. Adding frit also helps to minimize bubbles between the layers of glass, when fused.

Spray the frit with hair spray. We used Pale Amber, Medium Amber, Moss Green, Lipstick Red, and Aventurine Green.

11



Using scissors, cut strips that are approximately 1/8" wide off of the copper sheet to create stems for the leaves.



The stems can be the length of your choice. You can also cut 16- to 18-gauge wire for stems. The wire can be used as is or hammered flat. Glue the stems into place with the clear gel glue.

Be sure to let any glue or hairspray dry completely before capping your project with clear glass. It is not necessary to glue the clear glass. Fire at a full-fuse schedule, then slump the piece using the kiln programs at the end of the tutorial.

NOTE: We used a 9.5" square Slumpy's mold (#SM-9504) for our project. Use a mold of your choice and cut the glass layers in the appropriate size.

GPO

Firing Schedules

Here are the suggested firing schedules that we used. However, all kilns fire differently, so you may need to adjust the schedules to work with your own particular kiln.

Full Fuse Schedule

Segment 1: Ramp 100°F/hr to 300°F and hold 15 min.
Segment 2: Ramp 150°F/hr to 1050°F and hold 10 min.
Segment 3: Ramp 250°F/hr to 1450°F and hold 1 min.
Segment 4: Ramp 9999 (AFAP*) to 950°F and hold 90 min.
Segment 5: Ramp 100°F/hr to 800°F and hold 10 min.
Segment 6: Ramp 300°F/hr to 100°F and no hold.

*as fast as possible

Slumping Schedule

Segment 1: Ramp 400°F/hr to 750°F and hold 10 min.
Segment 2: Ramp 400°F/hr to 1000°F and hold 15 min.
Segment 3: Ramp 400°F/hr to 1150°F and hold 20 min.
Segment 4: Ramp 600°F/hr to 1240°F and hold 10-40**
Segment 5: Ramp 9999 (AFAP*) to 1000°F and hold 30 min.
Segment 6: Ramp 90°F/hr to 960°F and hold 60 min.
Segment 7: Ramp 120°F/hr to 750°F and hold 10 min.
Segment 8: Ramp 300°F/hr to 100°F and no hold.,

*as fast as possible

**total time determines finished effect



Alysa Phiel, a regular contributor to Glass Patterns Quarterly for the past seven years, is a third-generation glass artist with 30 years of experience having been taught by her grandparents, long-time glass artists who owned their own studio for 12 years. Alysa then owned and operated Creations in Glass with her mother for 10 years. She has also shared beginning to advanced classes with hundreds of students over the past eight years as the Director of the Warm Shop at Sonoran Glass School in Tucson, Arizona.

Recently Alysa opened her own studio, Wild Desert Glass, where she continues to create custom projects in addition to offering instruction in fused glass, stained glass, and mosaics. The artist's creativity and range of knowledge make her a fantastic teacher for students looking to create any type of glass art. She constantly experiments with new techniques and materials and helps others challenge themselves and expand their own skills as artists.

Alysa's work, which ranges from fused functional pieces and wall art to mosaic furniture and fountains, can be found in private collections all over the country. She also has numerous commissioned stained glass windows installed in homes and churches all around Tucson.



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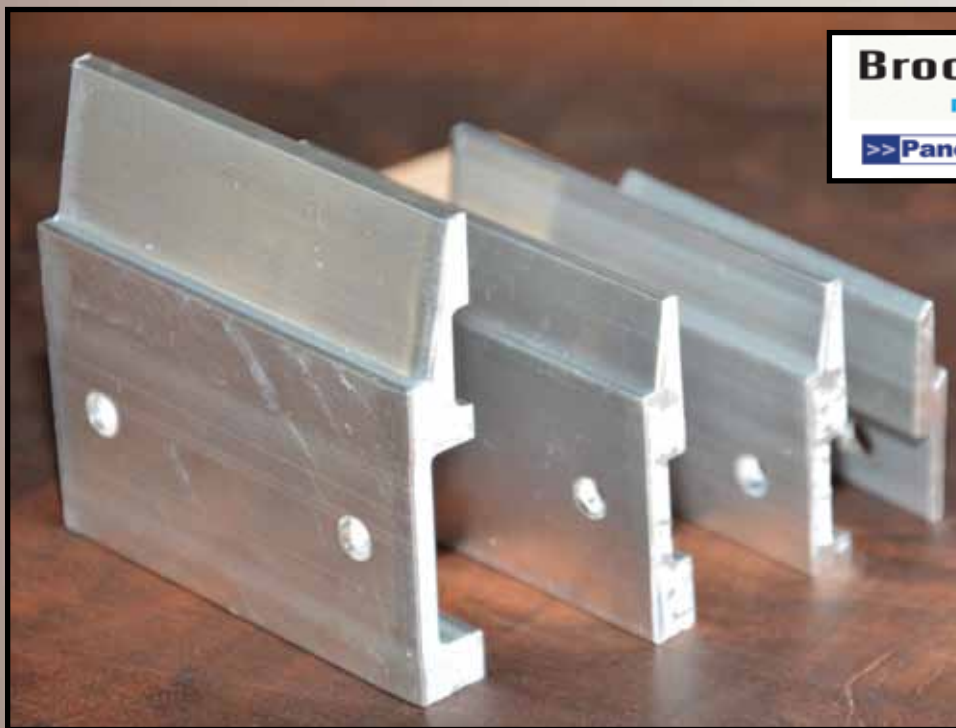
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Fused Dove Ornament

Design, Fabrication, and Text by Mary Harris



96 COE

White, Irid, or Clear Glass
Medium Frit

Tools and Materials

Elmer's® School Glue
Ribbon Clip Small Bail
Epoxy or Clear Silicone

Here is a quick and easy ornament project that anyone can make with or without a kiln. Using 2 mm glass gives a less heavy, finer appearance. The finished dove should fit inside a 3" x 3" box and make great Christmas gifts!

Cut the two dove sections, being careful with the inside curves, using a glass saw if necessary. Spread Elmer's School Glue on the edge of both wings and sprinkle them with medium 96 COE frit. Lightly press down on the frit to set it. Carefully dust off the glued side, then place the wings and body in the kiln. If you don't have a kiln, use iridized white glass and skip the frit portion.

This is the firing schedule that I used. Keep in mind that kilns vary, so always do a test fire first. Your frit should stick but still retain a frosty, crystal-like appearance.

Firing Schedule

Segment 1: Ramp 300°F/hr to 1350°F and hold 5 min.

Segment 2: Ramp 9999 (AFAP*) to 950°F and hold 10 min.

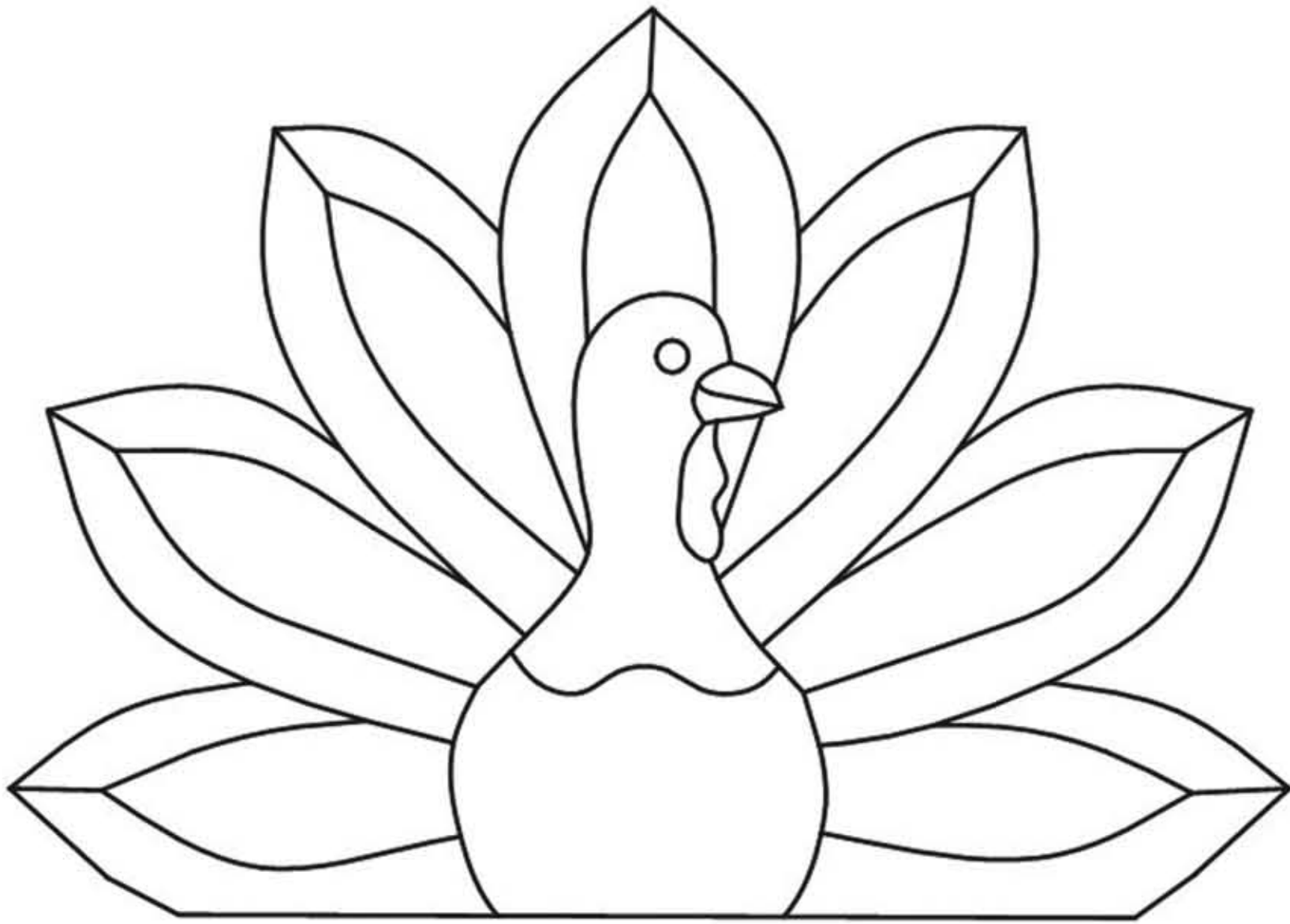
Segment 3: Off.

*as fast as possible

Glue the wings and a small bail to the body and clip the wings and body together until the glue is dry. I like to use a two-part, five-minute epoxy or clear silicone.

GPO

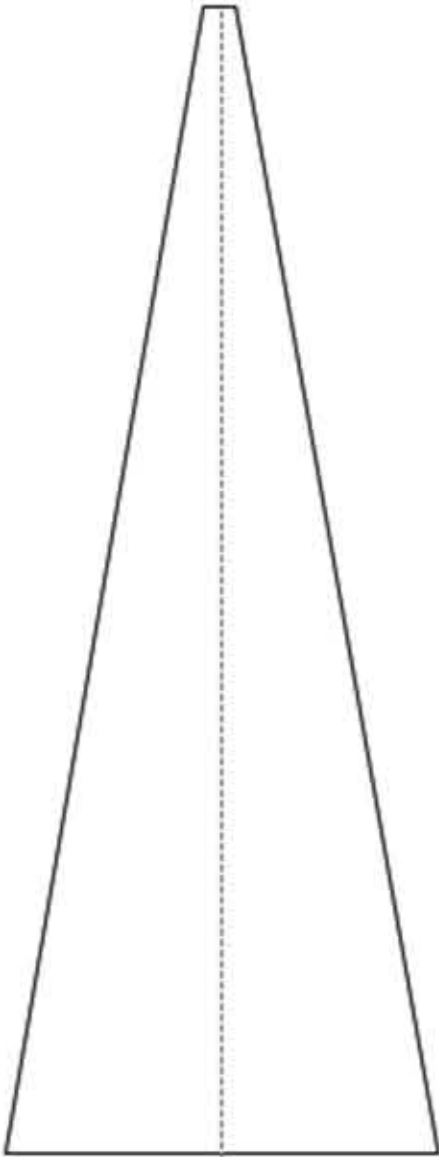
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Turkey Candle Shelter
or Flower Vase

Design by Lisa Vogt

96 COE Glass
Clear for Turkey Base Layer, 1/2 Sq. Ft.
Orange/Clear for Turkey and Strips, 1/2 Sq. Ft.
Grenadine/Clear for Turkey and Strips, 1/2 Sq. Ft.
Fern Green/Clear for Strips, 1/4 Sq. Ft.
Clear Thin Iridized for Strips, 1 Sq. Ft.
Yellow Opal Fine Frit
96 COE Dichroic Glass
Pebbles Pattern on Clear, 4" x 4"
1/4"-Long Wavy Firesticks, 2



Fused Glass Holiday Trees

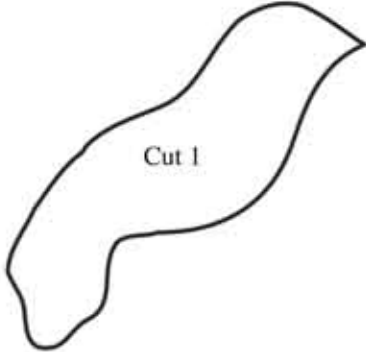
Design by Jim Matthews

Compatible Glass
For the Clear Tree
Clear
Opal Red Medium Frit
Opal Dark Green Medium Frit
One Murrina Slice
For the Green Tree
Clear
Transparent Lime Green
Transparent Light Green
Opal Red Medium Frit
Opal Red Glass Rod

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Wings Cut 2

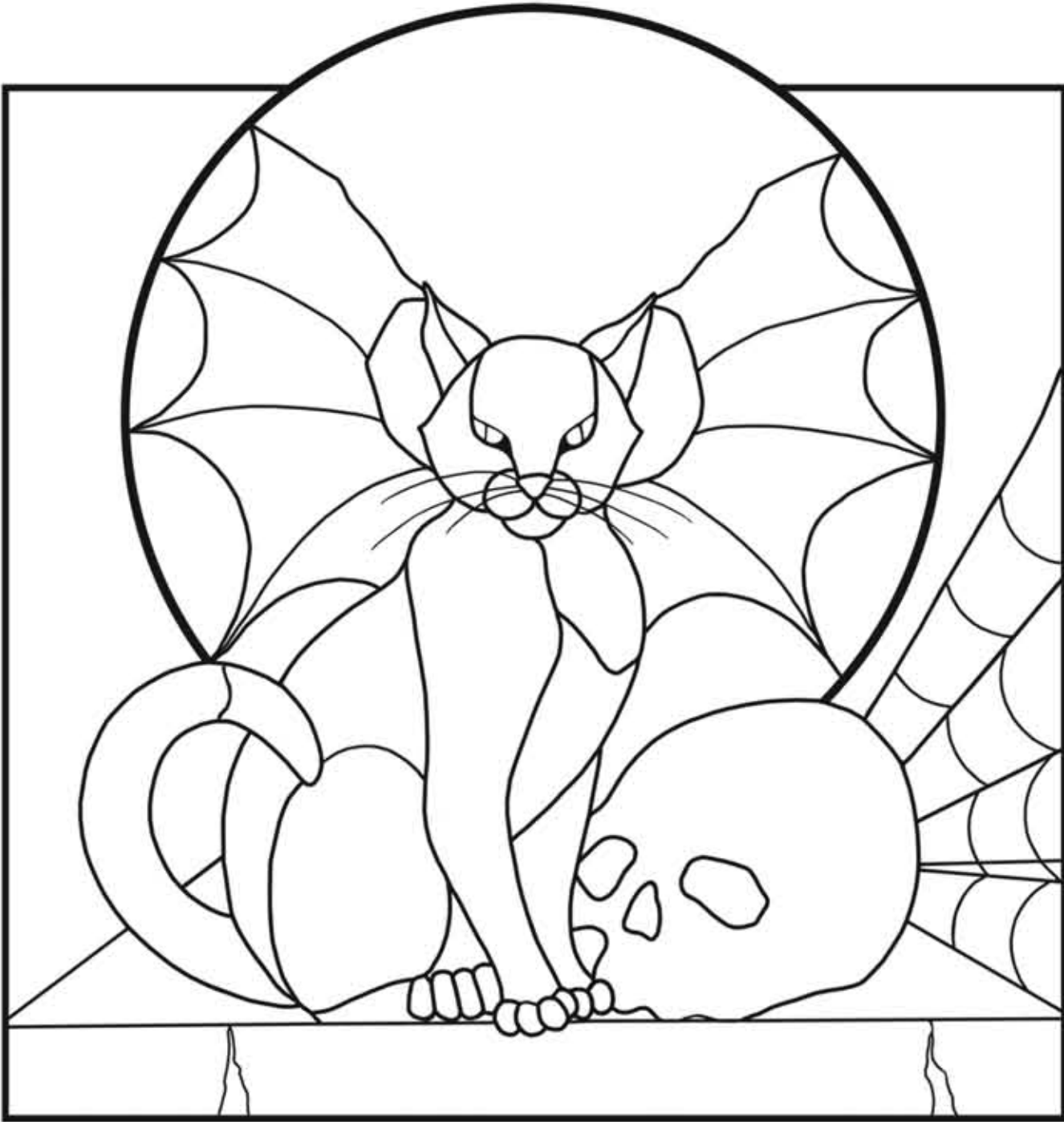


Cut 1

Fused Dove Ornament

Design by Mary Harris

96 COE
White, Irid, or Clear Glass
Medium Frit



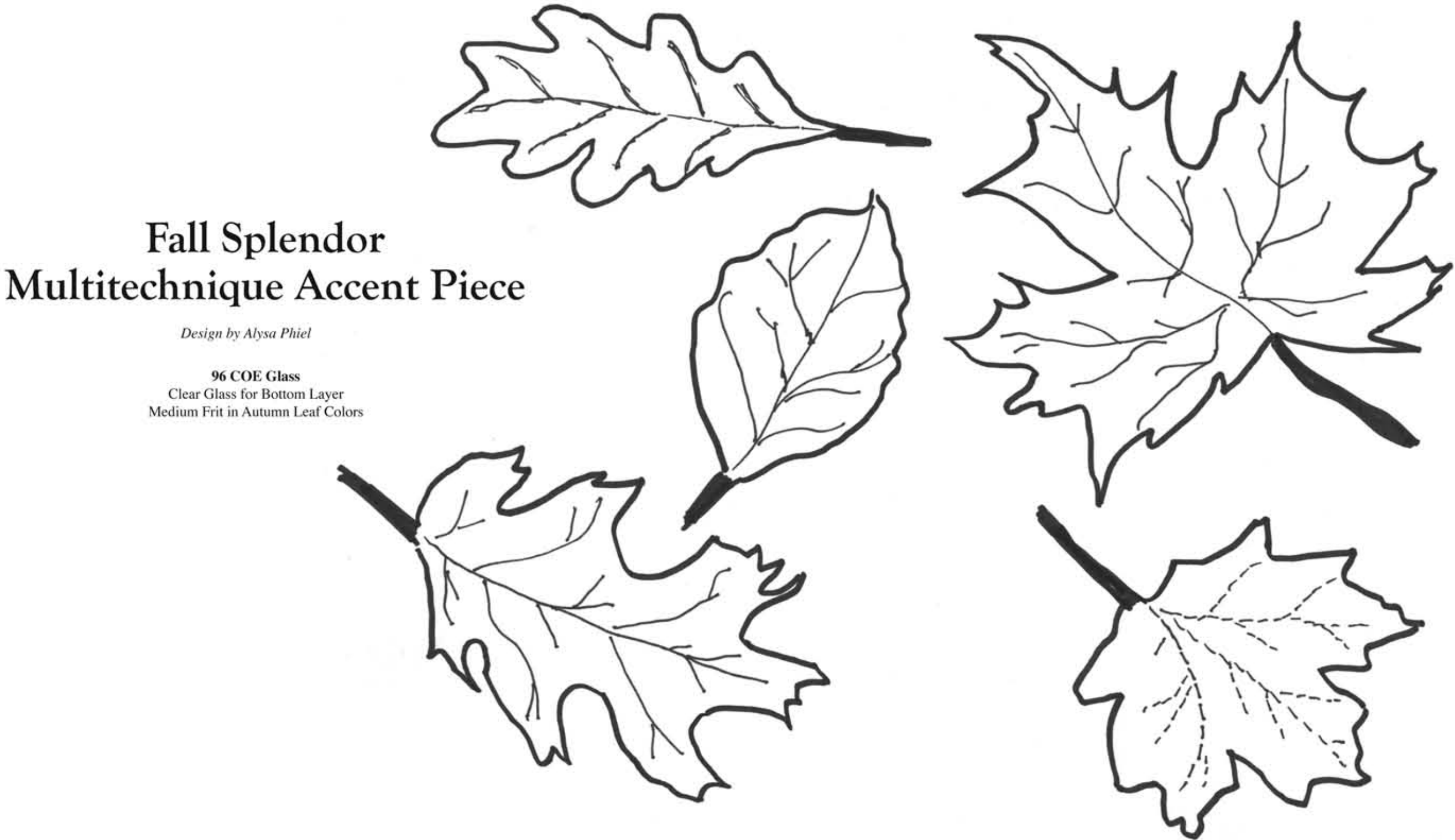
Wissmach Glass Company

Black for Cat, 1 Sq. Ft.

36-L Light Opal/Salmon for Ears and Nose, Scrap
57-LL Medium Green/Opal/Crystal Streaky for Eyes, Scrap
51-DDXXMSP Light Opal/Crystal for Chest, Face, and Tail, Scrap
237-D Cobalt Blue/Dark Purple/Dense Opal for Wings, Scrap
199-LL Medium Amber/Dark Amber Brown Streaky for Table Top, 1/2 Sq. Ft.
315-D Medium Amber/Dense Opal for Skull, Scrap
71-L Dark Brown/Green/Light Blue/Light Opal/Crystal for Table Crack and Skull Eyes and Nose, Scrap
44-L Burgundy/Crystal Rough Rolled Streaky for Background, 1 Sq. Ft.
145-GSP Dark Amber/Opal/Crystal for Moon, 1 Sq. Ft.

Ghoul Cat

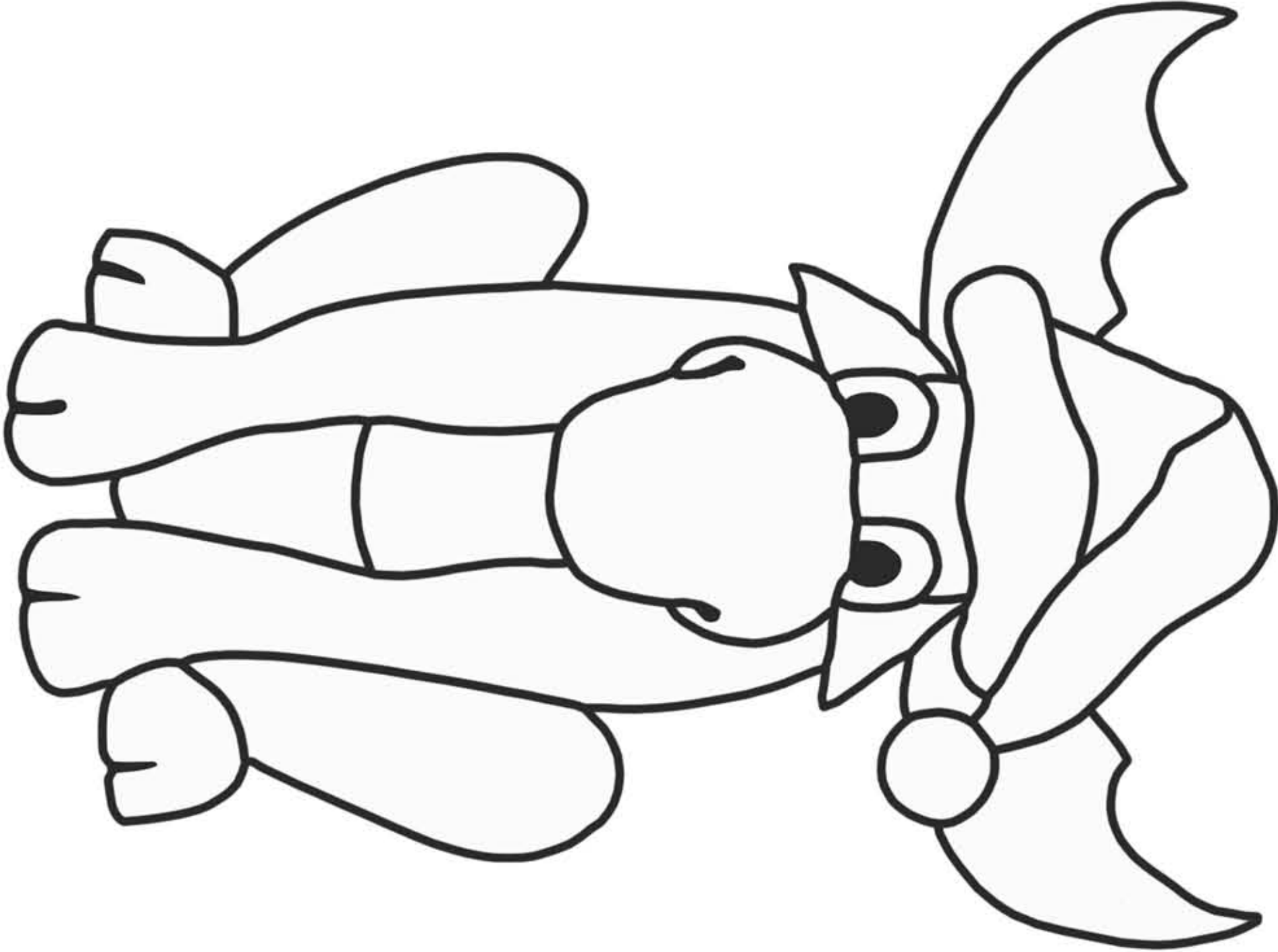
Design by Leslie Gibbs



Fall Splendor
Multitechnique Accent Piece

Design by Alysa Phiel

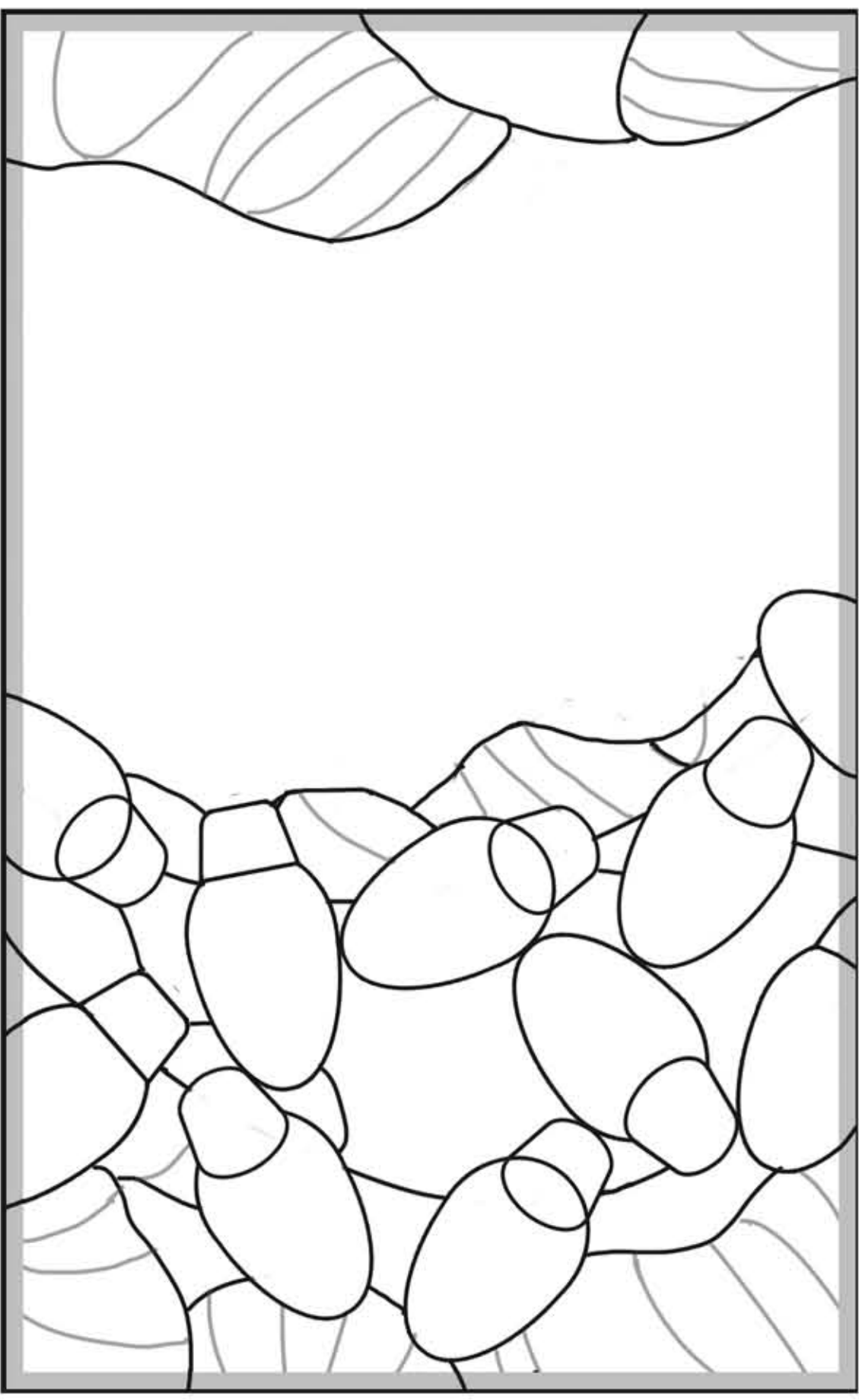
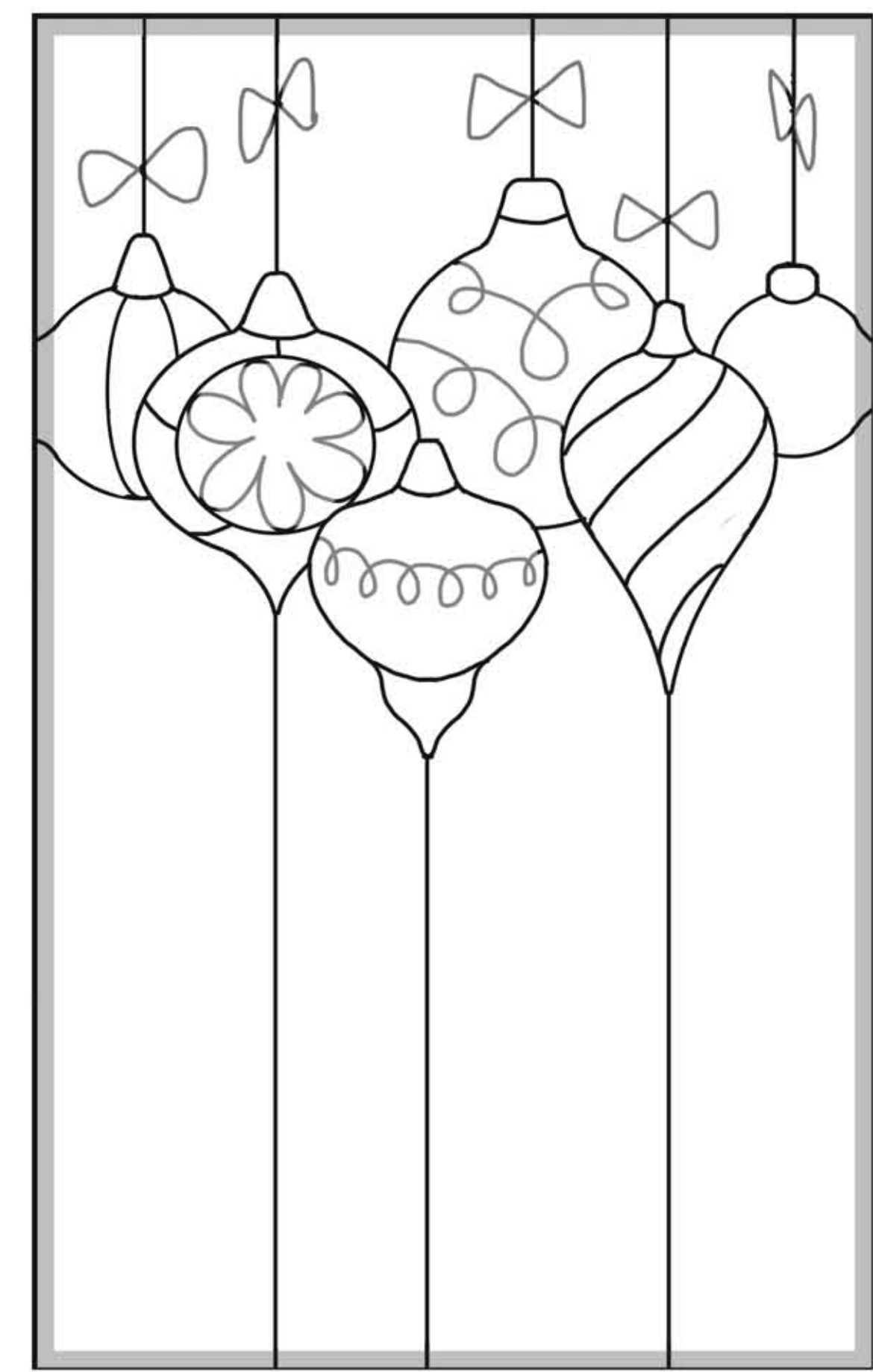
96 COE Glass
Clear Glass for Bottom Layer
Medium Frit in Autumn Leaf Colors



Christmas Moose

Design by Christine Harris

Wissmach Glass Company
77-L Light Brown/Yellow Green/Light Opal for Moose, 1 Sq. Ft.
145-SP Dark Amber/Opal/Crystal Streaky for Antlers, Scrap
WO-38 Orange/Opal Wispy for Hat, Scrap
51-L White Cast Opal Translucent for Hat, Scrap
51-LL White Cast Opal Very Translucent for Eyes, Scrap



Double the Holiday Cheer
An Introduction to Plating

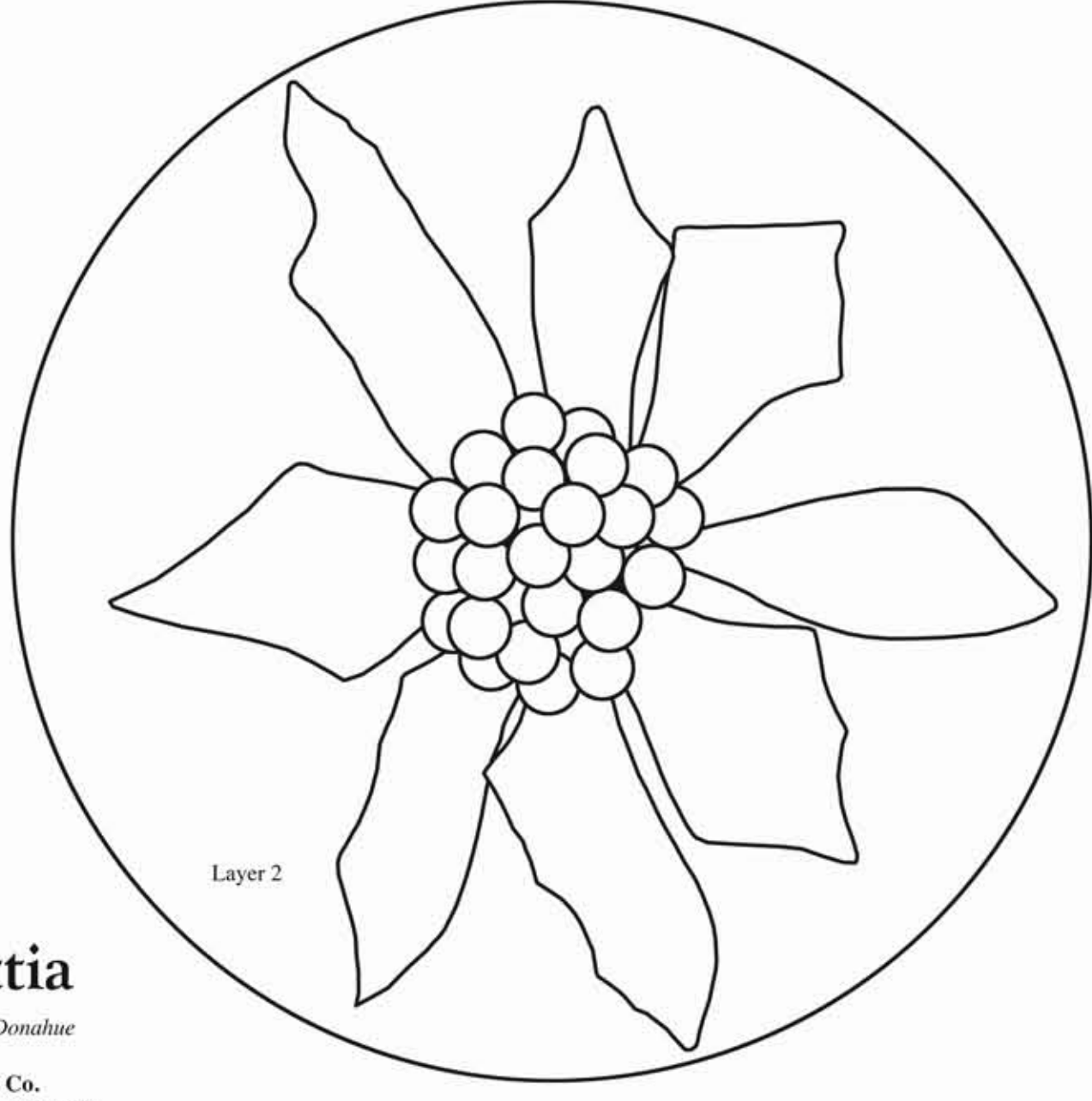
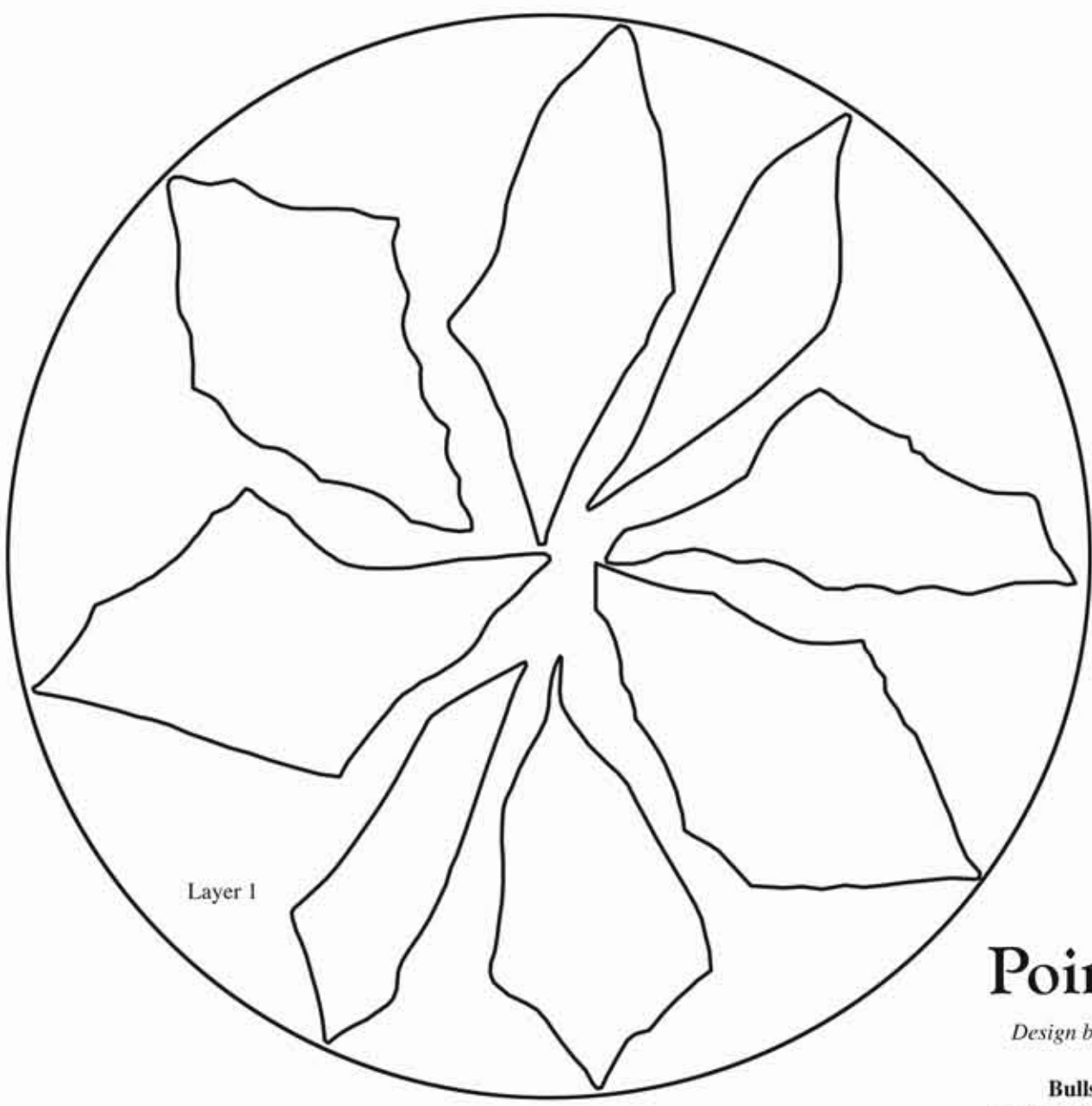
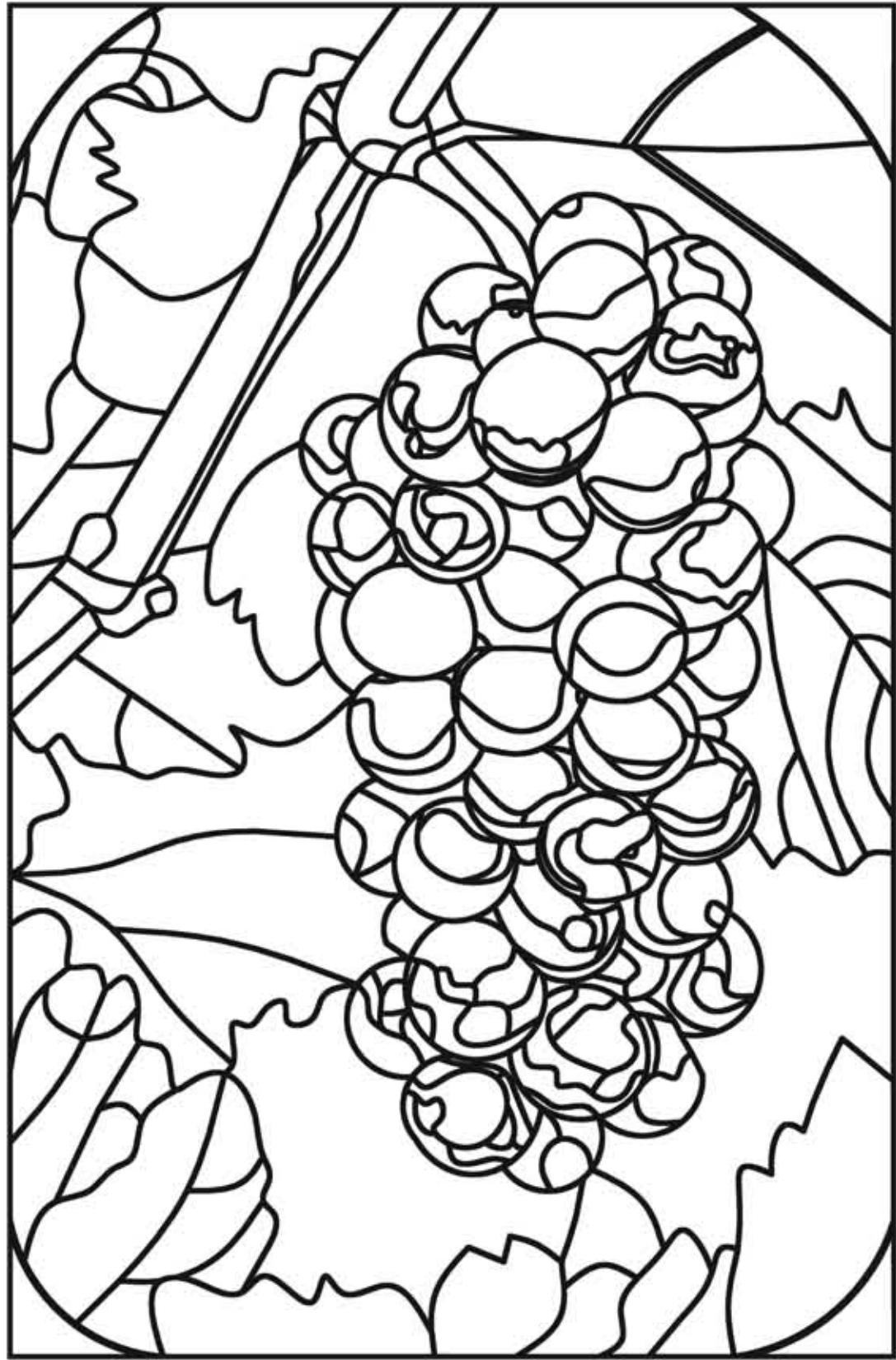
by Chantal Paré

Wissmach Glass Company
EM6 Pink English Muffle for Lights, Scrap
EM190 North Sea Blue English Muffle for Lights, Scrap
EM218 Light Violet English Muffle for Lights, Scrap
1146 Medium Yellow Green Corella Classic for Lights, Scrap
DR-319 Dark Yellow Green Double Rolled
for Light Sockets, 1/2 Sq. Ft.
FLEM-343 Medium Green Flemish
for Fir Branches, 1 Sq. Ft.
DR-18 Light Orange Double Rolled
for Christmas Balls, 1/2 Sq. Ft.
H-18L Orange Hammered Cathedral
for Christmas Balls, 1/2 Sq. Ft.
Yellow Cathedral for Lights, Scrap
Orange Cathedral for Lights, Scrap
Medium Amber Cathedral for Lights, Scrap
Youghiogheny Glass
SP-1000 Clear Stipple for Background, 3 Sq. Ft.

Not Quite Ripe

Design by Paned Expressions Studios

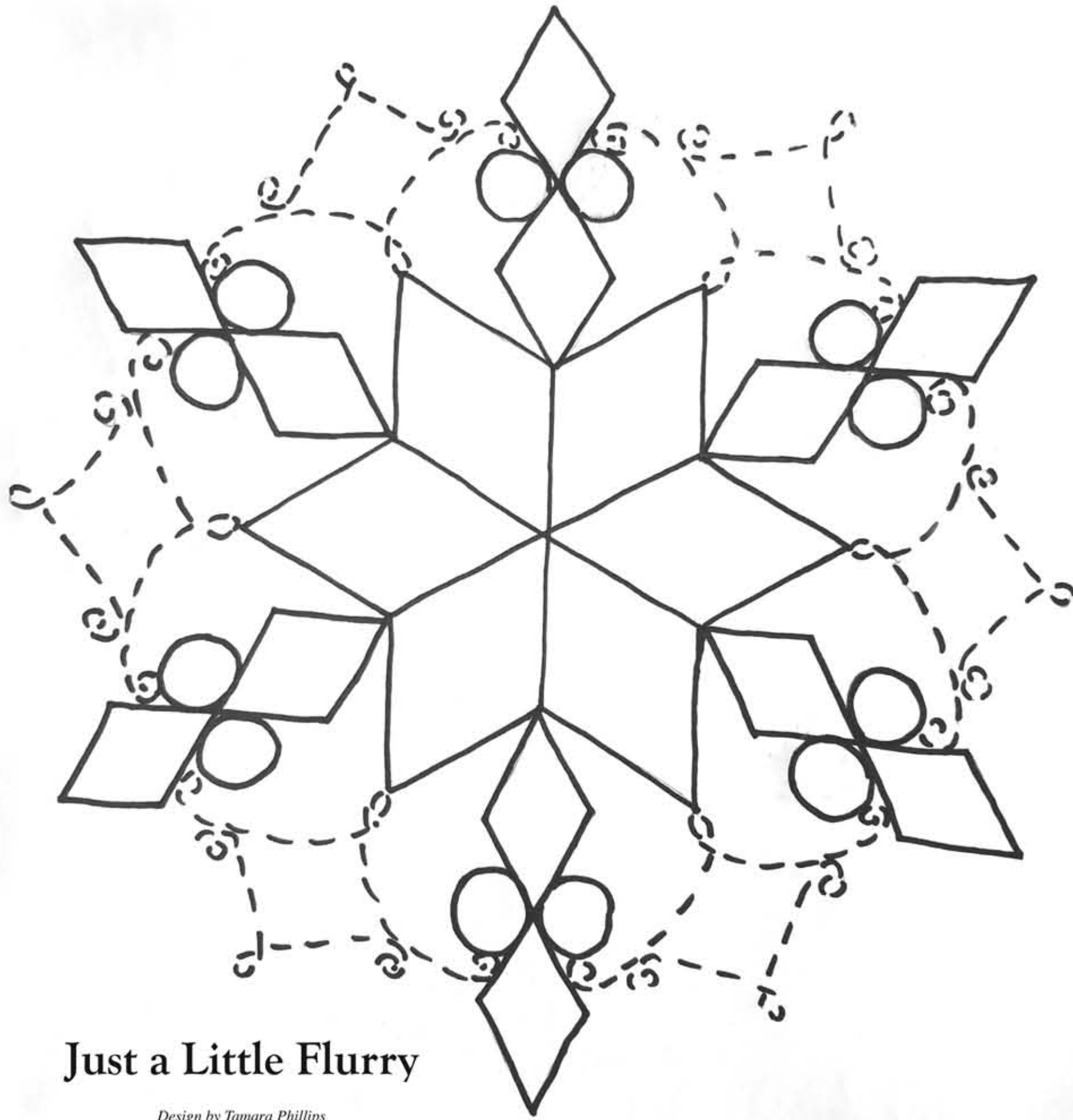
Wissmach Glass Co.
BLACK Dense Black for Rounded Corners, Scrap
112-L Dark Green/Dark Amber/Light Opal for Leaves, 4 Sq. Ft.
WO-709 Green/Amber/White Opal for Leaves, 1 Sq. Ft.
77-L Light Brown/Yellow Green/Light Opal for Grapevine, Scrap
145-SP Dark Amber/Opal/Crystal for Grapevine, Scrap
WO-701 Medium Purple/Dark Purple/White Opal Mystic for Grapes, 1 Sq. Ft.
67-L Dark Purple/Opal/Crystal for Grapes, 2 Sq. Ft.
217-D Medium Purple/Yellow Green/Dense Opal/Crystal, Scrap
94-L Medium Purple/Amber/Light Opal/Crystal for Background, 2 Sq. Ft.



Poinsettia

Design by Bonnie Donahue

Bullseye Glass Co.
1122-31 Iridized Red, 14" x 14"
1101-31 Iridized Clear 6" x 14"
4102-31 Iridized Crackle 6" x 12"
1101-32 Iridized Cat's Eye 6" x 12"



Just a Little Flurry

Design by Tamara Phillips

Glass
Clear Seedy or Other Glass of Choice, 32 Sq. In.
1/2" Colored Cabochons, 18

Not Quite Ripe

Design by Paned Expressions Studios, Text by Darlene Welch

Succulent grapes are one of nature's sweetest gifts as summer begins to give way to fall. This 18" x 27-1/2" stained glass panel captures them beautifully, just before they are fully ripe and the broad leaves are beginning to display their fall colors.

This design is part of the *Nature's Bounty-1* collection of patterns from Paned Expressions Studios. Over 100 patterns featuring wildlife, landscapes, sea animals, birds, the four seasons, and nature's bountiful gifts. A portion of the proceeds from the sale of the collection will benefit the World Wildlife Fund.

The patterns are in image files only with no software included on the CD. All patterns are provided in black and white in JPG, TIF, and GlassEye formats for both PC and Mac for easy resizing, reshaping, and recoloring. Visit www.panedexpressions.com to view more of the studio's fabulous collection of patterns

GPQ



Wissmach Glass Co.

- BLACK Dense Black for Rounded Corners, Scrap
- 112-L Dark Green/Dark Amber/Light Opal for Leaves, 4 Sq. Ft.
- WO-709 Green/Amber/White Opal for Leaves, 1 Sq. Ft.
- 77-L Light Brown/Yellow Green/Light Opal for Grapevine, Scrap
- 145-SP Dark Amber/Opal/Crystal for Grapevine, Scrap
- WO-701 Medium Purple/Dark Purple/White Opal Mystic for Grapes, 1 Sq. Ft.
- 67-L Dark Purple/Opal/Crystal for Grapes, 2 Sq. Ft.
- 217-D Medium Purple/Yellow Green/Dense Opal/Crystal, Scrap
- 94-L Medium Purple/Amber/Light Opal/Crystal for Background, 2 Sq. Ft.

Tools and Materials

- 7/32" Copper Foil Flux Solder
- Black Patina 1/2" U-Channel Zinc

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Turkey Candle Shelter or Flower Vase

Design, Fabrication, and Text by Lisa Vogt

Let the festivities begin! Fall is a season for celebrating family, friends, and feasting. At my house, the dining room table is the center of attention at this time of year. Accordingly, I like to decorate the table with a special piece of art that brings cheerful energy to our gatherings. This 6" x 8-1/2" brightly colored turkey is the perfect adornment for such joyous occasions. It may look complicated, but it's actually fast and easy to make.



96 COE Glass

Clear for Turkey Base Layer, 1/2 Sq. Ft.

Orange/Clear for Turkey and Strips, 1/2 Sq. Ft.

Grenadine/Clear for Turkey and Strips, 1/2 Sq. Ft.

Fern Green/Clear for Strips, 1/4 Sq. Ft.

Clear Thin Iridized for Strips, 1 Sq. Ft.

Yellow Opal Fine Frit

96 COE Dichroic Glass

Pebbles Pattern on Clear, 4" x 4"

1/4"-Long Wavy Firesticks, 2

Tools and Materials

10-1/2" x 9" x 4" Ceramic Slumping Mold

6" x 4" x 12" Clear Candle Shelter

Fuser's Glue Marker Glue Stick

E6000 Adhesive Masking Tape

Pillar Candle or Flowers

1

Cut out the turkey shaped paper pattern with scissors.



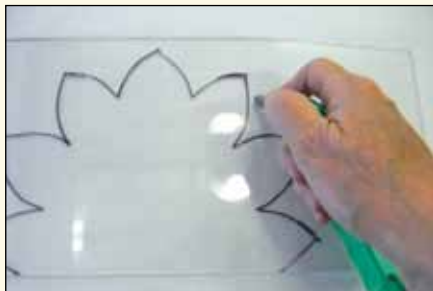
2

To make the base, trace the turkey shape onto the clear glass with a marker.



3

Cut as much of the clear glass by hand as possible.



4

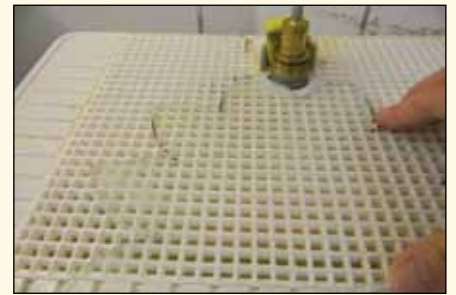
Detail the turkey's shape with a glass saw.



The clear base layer can be made up of pieces if you don't have access to a saw.

5

Grind the base to remove any sharp edges and improve the shape.



6

Using the pattern as a guide, cut the turkey body and feathers.



For the colorful design layer, cut the pattern up with scissors. Affix the paper pieces to the appropriate colored glass with a glue stick. Cut the pieces as closely to the paper as possible.

7

Cut the rest of the feathers.



8

Cut a second turkey body out of the patterned dichroic on clear.



9

Grind the cut glass pieces to improve the shapes and remove any sharp edges.



10

Place the clear base on a second pattern and apply a small amount of fuser's glue to the clear base.



11

Assemble the colorful design layer on top of the clear base layer.



12

Stack the dichroic body on top of the colored layer.



No glue will be used at this point to hold the pieces together. It does not burn off cleanly when used on clear dichroic glass and leaves a small gray circle that detracts from the finished piece.

13

Using a spoon, pour a small amount of fine frit onto the turkey.



14

Work the frit down into any gaps with a paint brush.



This step gives the finished artwork nice, added detail. I selected a complementary yellow to highlight this bold color palette. When using this technique, I intentionally pick fine frit instead of powder. The excess fine frit is easier to clean off the surface of the project than powder, which tends to stick.

15

Add the dichroic accents.



Add a dot for an eye and a yellow triangle for a beak. Now for a little bling. Nip wavy Firestrips to size and place them on the turkey's feathers for a flashy zinger.

16

Cut strips out of the colored and iridized clear.



Cut a total of 16 strips measuring 1/2" x 5-7/8" out of red, orange, and green glass with a strip cutter. Cut 16 strips of iridized clear the same size. Stack the clear iridized strips on the colored strips.

17

Stack the cut iridized clear strips on the color strips in the kiln.



18

Fire the turkey and strips to a full fuse using the suggested schedule at the end of the tutorial.



19



Slump the fused turkey over a barrel shaped ceramic mold.



20

Apply glue to the back of the turkey.



21



Glue the slumped turkey to the front of the clear candle shelter with E6000 adhesive.



Tape the fused glass to the clear shelter to ensure that it doesn't slide off and let the glue dry overnight.

22



Glue the backs of the colored strips and attach them to the clean candle shelter.



23

Tape the strips in place and let the glue dry overnight.



Colored fused glass strips now cover the remainder of the clear candle shelter to give it a festive flare all the way around. This fancy turkey project does double duty, since it can be used as a candleholder or a flower vase. Either way, it's a beautiful seasonal addition to any decor. Happy Holidays!

GPO

Firing Schedules

Note that all kilns fire differently. Test-fire these guides in your kiln, then make adjustments as needed.

Full Fuse Schedule

Segment 1: Ramp 300°F/hr to 1300°F and hold 30 min.
Segment 2: Ramp 500°F/hr to 1465°F and hold 10 min.
Segment 3: Ramp 9999 (AFAP*) to 960°F and hold 40 min.
Segment 4: Cool to room temperature.

*As fast as possible

Slumping Guide

Segment 1: Ramp 300°F/hr to 1265°F and hold 10 min.
Segment 2: Ramp 9999 (AFAP*) to 960°F and hold 40 min.
Segment 3: Cool to room temperature.

*As fast as possible

Lisa Vogt discovered glass while pursuing an education in fine art. For more than twenty-five years, this award-winning artist has drawn upon her fine arts background and own sense of style, drama, and whimsy to combine this historic medium with innovative glass techniques for limitless design possibilities. Her work has been on exhibit in major cities throughout the United States.

Lisa is the author of fourteen design books and a series of instructional videos in addition to frequent articles for industry magazines and fiction for publication. She also lectures at national and regional seminars and has been a featured artist on HGTV, PBS, and Glass Patterns Quarterly Webinars. A huge supporter of public art, Lisa regularly contributes artwork for auction to benefit local, regional, and national charities. Her home and studio are located north of Tampa Bay in Wesley Chapel, Florida, where she resides with her husband and two daughters. Visit www.LisaVogt.net to find out more about her work and seminars.



Poinsettia

Original Design by Bonnie Donahue, Fabrication and Text by Cindi Shaffer



Poinsettia plants are native to Central America, especially an area of southern Mexico known as Taxco del Alarcon, where they flower during the winter. The ancient Aztecs called them *cuetlaxochitl* and had many uses for them, including using the part that we normally think of as flowers, which are actually special types of leaves known as bracts, to make a purple dye for clothes and cosmetics. The milky white sap was made into a medicine to treat fevers. Today we call the sap latex!

Also known as the Christmas Star and Christmas Flower, it's said that the poinsettia's association with Christmas comes from a Mexican legend. The story goes that a child, who had no means for a grander gift, gathered humble weeds from the side of the road to place at the church altar on Christmas Eve. As the congregation witnessed a Christmas miracle, the weeds turned into brilliant red and green flowers. From that day on, the bright red flowers were known as the "Flores de Noche Buena," or "Flowers of the Holy Night."

The shape of the poinsettia flower and leaves are sometimes thought of as a symbol of the Star of Bethlehem, which led the Wise Men to Jesus. The red colored leaves symbolize the blood of Christ. The white leaves represent his purity. Regardless of their humble origin, the sight of poinsettias in department stores and home decor tells us that Christmas is just around the corner. The original design for this poinsettia is from Bonnie Donahue of Donahue Designs in Eugene, Oregon.

Bullseye Glass Co.

1122-31 Iridized Red, 14" x 14"

1101-31-Iridized Clear 6" x 14"

4102-31 Iridized Crackle 6" x 12"

1101-32 Iridized Cat's Eye 6" x 12"

Tools and Materials

Bullseye ThinFire Paper

12" Circular Slump Mold

Astral Glass ChopMaster™ Base Unit

Wheeled Glass Nippers

Unscented Pump Hair Spray

1

Cut 1/2" Iridized Clear squares, stack, and fire.



Clean the 6" x 14" piece of iridized clear. Cut a 6" x 2" piece off of the end of the clear irid and cut that piece into 1/2" squares. Line the kiln shelf with ThinFire paper. Create stacks of the 1/2" squares on the ThinFire paper with two of the squares in each stack. Place one square on top of the other with both pieces irid side up and set at a 90-degree angle to each other. Be sure to not put irid to irid, since the pieces will not fuse well. The stacked irid squares will fire into circles.

Fire the iridized glass pieces using the following suggested schedule. However, remember that all kilns fire differently, so you may need to adjust the schedule to fit your own kiln.

Firing Schedule

Segment 1: Ramp 350°F/hr to 1100°F and hold 20 min.

Segment 2: Ramp 350°F/hr to 1500°F–1525°F and hold 15 min.

Segment 3: Ramp 9999 (AFAP*) to 900°F and hold 60 min.

Segment 4: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

2

Cut a 12" circle out of the Red Iridized glass and chop the rest of the red glass into small pieces.



Cut a 12" circle out of the Iridized Red. Using wheeled glass nippers, chop up the rest of the red glass into organic shapes. I use the ChopMaster base unit, which gets the chopper up off of the table. The handle makes it possible to use your dominant hand to hold the glass while chopping it up so that there is no strain on your arm. You can also use the chopper in your dominant hand as usual. Either way, you should loosely hold the glass at different angles to the chopper wheels and let the glass fall into a container under you.

Loosely holding the glass makes for more organic shapes. A tighter angle of the nipper wheels to the glass edge will result in smaller pieces. If you point the chopper wheels toward the opposite edge of the glass, the pieces will be much larger but still have organic shapes. Use this chance to explore how the nippers make organic shapes as you chop. The red pieces need to be small, so this is your time to get the feel of what shapes you get depending on the angle of the glass to the nipper heads.

3

Chop up the 6" x 12" clear, crackle, and cat's eye irid pieces starting on the 6" side.



Point the nipper heads to the opposite side of the 6" width at a 40-degree angle. If you point the chopper wheels toward the opposite edge of the glass, the pieces will be much larger but still have organic shapes. By flipping the glass around and pointing the nippers in the direction you want to cut, you will get extended triangle shaped pieces that will be your poinsettia petals.

4

Draw a 12" circular template on a piece of ThinFire paper and lay out the largest clear pieces on the template in a circular pattern for Layer 1.



5

Place a second layer of smaller pieces on top of Layer 1.



Continue cutting and layering until you get the Layer 2 petals finished, placing them on top of Layer 1 to cover the spaces between the Layer 1 petals.

6

Prefire all the clear irid petals and the small red pieces in the kiln on ThinFire paper.



Prefiring rounds the edges nicely and shrinks the glass up a bit. If this is done in the next step, the relief is lower and not as pretty. Here is a suggested firing schedule, but adjust it to fit your own kiln as necessary.

Firing Schedule

Segment 1: Ramp 350°F/hr to 1100°F and hold 20 min.
Segment 2: Ramp 350°F/hr to 1400°F and hold 20 min.
Segment 3: Ramp 9999 (AFAP*) to 900°F and hold 30 min.
Segment 4: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

7

Begin to place the clear petals on the 12" red irid glass circle.



Clean the red circle and the petals. Lay the red circle irid side up on a kiln riser so you can pick it up easily later. Begin laying out the largest clear petals on the circle, irid side up. If they don't quite meet in the middle, don't worry.

8

Fill in with the small red pieces, irid side up, between the petals, in the center, and around the edge.



Do not hang the glass more than just a smidge over the edges. Pieces of glass hanging over the edge of the circle look beautiful but are thin and are prone to chipping off easily. Grind any sharp tips off of the red pieces that are near the outside edge of the piece. They will still be sharp in the next firing.

Use liquid hair spray in a small tipped bottle to glue the pieces down. I have seen hair spray leave a mark on iridized glass after firing, so wipe away any hairspray on top of the glass with a paper towel. As I drip the hair spray on, I drip it to the outside edge of the glass and let the capillary action pull it under the pieces to minimize hair spray on top of the glass.

9

Finish layering the petals, then add the center dots and fire the piece.



Add the second layer of petals, irid side up, and offset from the first layer. You can pull these out toward the edge but not as far as the first layer. It's okay if this leaves an open spot in the center, since it will be covered by the irid dots. Now lay in two layers of irid dots in the center of the piece.

Cut the ThinFire paper to 13" x 13". Center the piece on the ThinFire paper in the kiln. Fire using the following suggested schedule, again making any necessary adjustments for your own kiln.

Firing Schedule

Segment 1: Ramp 300°F/hr to 1100°F and hold 20 min.
Segment 2: Ramp 75°F/hr to 1225°F and hold 20 min.
Segment 3: Ramp 350°F/hr to 1400°F and hold 15 min.
Segment 4: Ramp 9999 (AFAP*) to 900°F and hold 2 hrs.
Segment 5: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

The piece is annealed for 2 hours per the Bullseye thick firing annealing chart. The entire piece must be annealed for its thickest part, which is the center. The center is approximately 15 mm thick, with the base circle, petal layer 1, petal layer 2, and two layers of 6 mm dots.

10

Clean the piece and slump.



I used a 12" slumping mold. The annealing time on the slump firing still has to take the thickness of the piece into consideration. Make any adjustments as needed.

Slumping Schedule

Segment 1: Ramp 250°F/hr to 1200°F and hold 20 min.
Segment 2: Ramp 9999 (AFAP*) to 900°F and hold 2 hrs.
Segment 3: Ramp 100°F/hr to 700°F and no hold.

*as fast as possible

Enjoy this lovely poinsettia piece during your holiday season and year round.

GPO



Cindi Shaffer is a glass artist living and working in Prescott, Arizona, and has been fusing and casting glass for 18 years. At Astral Glass Studio, which she owns with her husband Joe, she creates glass jewelry, functional glass objects, 2-D wall art, and mixed media sculptures that she creates, collaborating with Joe and other mixed media artists. She is also the inventor of the ChopMaster™ Base Unit as well as the ChopMaster™ with cane/gauge attachment that allows artists to chop glass using wheeled or other plier type nippers without hand strain. Visit her website at www.AstralGlassStudio.com to see more of Cindi's glass art.

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Fused Glass Holiday Trees

Design, Demonstration, and Text by Jim Matthews



Running short of time and need to make something with a holiday theme? One pot of coffee and one morning in the studio can yield a quota of these sparklers with minimal materials and few frustrations. I like to hang them in a window or place them on a stand instead of using them as tree ornaments, which never seem to get enough light. They're a great choice for night-light hardware too.

Compatible Glass

For the Clear Tree

Clear

Opal Red Medium Frit

Opal Dark Green Medium Frit

One Murrina Slice

For the Green Tree

Clear

Transparent Lime Green

Transparent Light Green

Opal Red Medium Frit

Opal Red Glass Rod

Tools and Materials

Fiber Paper Slow Drying Fusing Adhesive

Cheap Pump Hair Spray Glass Nippers

Tweezers Kitchen Strainer

Metal Pick Hanging Wire

1

Prepare the clear base.



From clear glass, cut a base according to the pattern, then use nippers to disfigure the straight edges so the base will better blend into the tree branches. I like to draw a faint line up the center for reference.



2

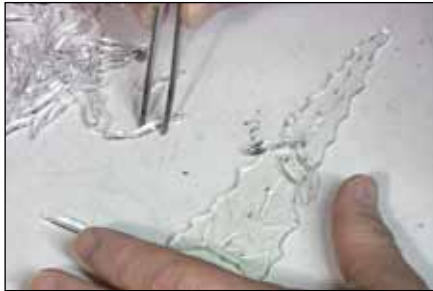
Create the branches.



To make the tree branches, nip ordinary crescent-shaped troughs up one straight edge of some scrap glass. Then nip into the bottom of the troughs you just created, placing the nipping wheels about 1/8" deeper than before. Each bite will yield a little organic squiggly shape.

3

Use tweezers to position the small nipped pieces on the branches, then place the branches on the base.



Make a batch of little squiggles, moisten the base with any fusing adhesive that allows plenty of working time, and find your tweezers. Then place branches onto the base in a chevron-like pattern, each one angling down from the center.

4

Spray the glass with clear pump hairspray before adding the second layer of branches.



Leave some space at the top for a pinnacle ornament of your choosing. Add a light coat of hair spray to give the second layer of branches something to stick to.

5

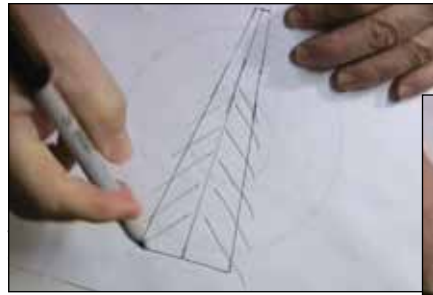
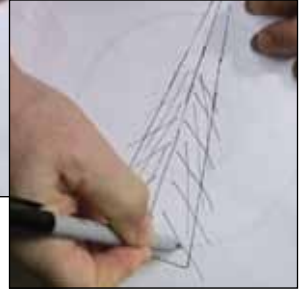


Diagram the placement of the first and second layers of branches.



Where the first layer of branches is positioned chevron-like, the next are placed at a steeper angle, as if they're coming at you instead of pointing out to the sides. There don't have to be very many. The crossing edges create the refraction and sparkle.

6

Place the second layer of branches on top of the first branches with the tweezers.



7

Finish building the tree by adding a murrina slice for the pinnacle ornament.



8

Decorate the tree with the red and green medium opal frit.



You're in charge of deciding how to decorate your tree. For the clear glass tree, I screened medium frit with a kitchen strainer to create pieces that were semi-uniform in size, then sprinkled them and used tweezers to distribute them effectively. For the green version, I nipped short sections from compatible rod and stood them on end, then sprinkled some red frit to accent.

9
Cut strips of clear glass and fiber paper measuring about 1-1/4" x 5" to use for the fused-on hanging hooks.



10
Place the fiber paper strip perpendicular to the glass strip to form a cross and glue it down.



11
Add glue to the top of the fiber paper strip and lay the glass carefully onto it.



12
Glue the clear strip to the back of the base, then proceed with firing the piece using the suggested contour firing schedule.



The fiber paper will create a void to run a hanging wire through. With the fiber and glass strip attached to the bottom, the glass won't lie flat on the shelf, but don't worry. The heat of the kiln will take care of everything. Since all kilns fire differently, you may need to adjust the firing schedule to fit your own kiln.



13
After the piece is fused, dig out the fiber paper to expose the tunnel for the hanging wire.



You can use this same technique to make a wreath by cutting a clear glass circle according to the pattern. Leave the smaller innermost circle blank and use the dotted line as your center reference. Add two layers of squiggly branches emanating from the center line, all the way around, just as we did for the trees. To finish, decorate and hang. I hope you enjoy making these sparkling fused glass holiday decorations!

GPQ

Contour Fusing Schedule

Segment 1: Ramp 350°F/hr to 1050°F and hold 15 min.
Segment 2: Ramp 300°F/hr to 1375°F and hold 3 min.
Segment 3: Ramp 9999 (AFAP*) to 950°F and hold 45 min.
Segment 4: Ramp 150°F/hr to 775°F and hold 10 min.
Segment 5: Ramp 300°F/hr to 200°F and no hold.
*as fast as possible



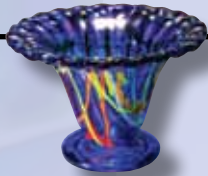
Jim Matthews spent his entire career with Spectrum Glass Company in all aspects of sales, marketing, and business development. He was instrumental in contributing to the company's progress and its many art glass innovations for 34 years. In 2015, he launched the popular website and blog *Glasshoppa.com* and began producing and publishing video glass projects for novice and intermediate glass fusers.

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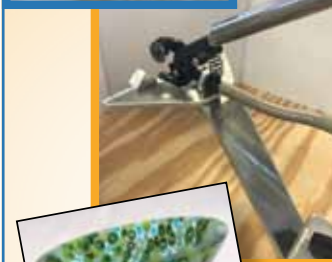
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Spider



Design, Fabrication, and Text by Dennis Brady

It's time for another trip to Glass Campus. Here's a fun way to make 3-D spiders.

Cutting

Cut 8 pieces of 1/4" x 3" fusible black glass and lay them out in an 8-point assembly. Make a 5/8" round for the spider's head by stacking three 1/2" inch squares and firing to a full fuse. Make a 1-1/8" inch round for the spider's body by stacking three 3/4" inch squares and firing to a full fuse.

Size Predictions for Making the Pebbles

1 layer of 1/2" square for a 3/8" round
2 layers of 1/2" squares for a 1/2" round
3 layers of 1/2" squares for a 5/8" round
4 layers of 1/2" inch squares for a 3/4" round

1 layer of 3/4" square for a 1/2" not round
2 layers of 3/4" squares for a 3/4" not round
3 layers of 3/4" squares 1-1/8" round

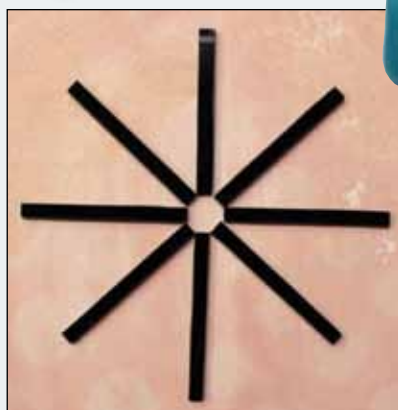
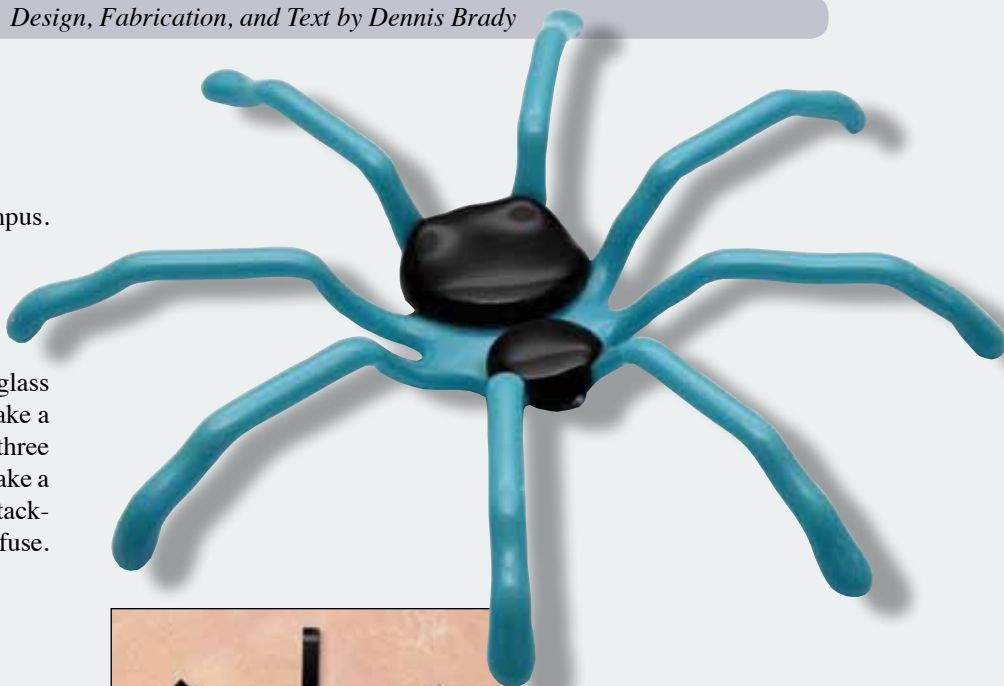
Assembly

Place a 1" x 1" square in the center of the leg assembly. Fire the leg assembly to a full fuse. For some extra decoration, you might add glass frit or mica to fuse into the glass. Place the two rounds you made on for the head and body to be tack-fused onto the leg assembly.

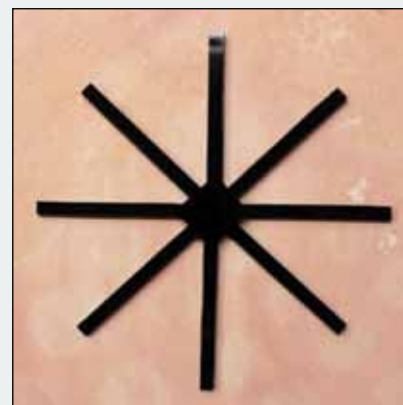
Fire the head, body, and leg assembly to a tack fuse. At this stage you might add glass frit to tack-fuse on to create a textured spider like a tarantula.

Cut out two 4-1/2" and two 5" rounds of 1/8"-ceramic fiber paper as shown on the Mold Pattern drawing. You want to have two rings that are each 1/4" thick.

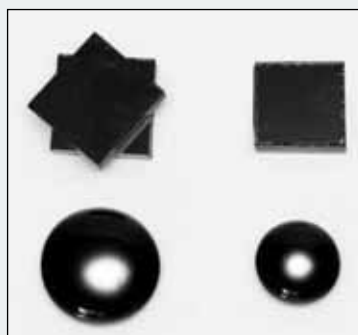
Assemble the mold rings and place the fused spider assembly on it. Take care to have the center point of the legs at the center of the mold. Finish the spider by firing to a drape/slump. **GPQ**



Spider legs assembled



Spider legs with connector ready to fire



Making glass pebbles





Spider leg assembly after fusing



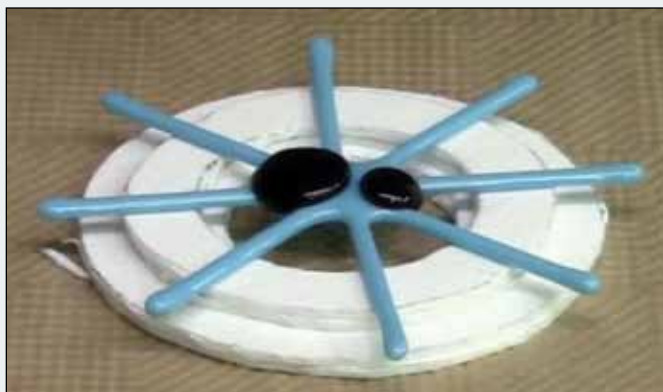
Head and body on leg assembly ready to tack-fuse



Cutting out fiber paper to make the slump mold



Mold rings complete



Spider assembly on mold rings ready to slump

Firing Schedules

Here are some suggested firing schedules for each part of the construction. Remember that all kilns fire differently, so you may need to make some adjustments for your own kiln.

Making Pebbles

Segment 1: Ramp 900°F/hr to 1460°F and hold 30 min.

Segment 2: Ramp 9999 (AFAP*) to 960°F and hold 30 min.

* as fast as possible

Full Fuse Leg Assembly

Segment 1: Ramp 400°F/hr to 1000°F and hold 20 min.

Segment 2: Ramp 900°F/hr to 1460°F and hold 20 min.

Segment 3: Ramp 9999 (AFAP*) to 960°F and hold 30 min.

Segment 4: Ramp 400°F/hr to 300°F and no hold.

*as fast as possible

Tack Fuse – Head and Body to Legs

Segment 1: Ramp 400°F/hr to 1000°F and hold 20 min.

Segment 2: Ramp 900°F/hr to 1350°F and hold 15 min.

Segment 3: Ramp 9999 (AFAP*) to 960°F and hold 30 min.

Segment 4: Ramp 400°F/hr to 300°F and no hold.

*as fast as possible

Drape/Slump

Segment 1: Ramp 400°F/hr to 1000°F and hold 20 min.

Segment 2: Ramp 900°F/hr to 1285°F and hold 15 min.

Segment 3: Ramp 9999 (AFAP*) to 960°F and hold 30 min.

Segment 4: Ramp 400°F/hr to 300°F and no hold.

*as fast as possible

Dennis Brady has been a full-time professional glass artisan since 1980 and currently works with stained glass, fusing, casting, glassblowing, and sandblasting. He has authored and published six books of stained glass patterns plus A Lazy Man's Guide to Stained Glass. Along with his sons, Dane and Jason Brady, he operates several companies. DeBrady Glassworks produces glass art; Victorian Art Glass sells tools, equipment, and supplies; and Master Artisan Products manufactures molds and tools for glass artisans. He has also created the website Glass Campus, which offers over 100 tutorials and videos teaching numerous glass art techniques as well as tips on how to make a living as a glass artisan.

Dennis teaches extensively in his home studio in Victoria, British Columbia, Canada, and as a guest instructor in several other countries. He is also a contributing artist to GPQ's live and recorded Glass Expert Webinars™ and Master Glass Artisan Lecture Series™. His "push the boundaries" approach to experimentation and innovation is always, "How fast can I go until I skid into the ditch." Visit www.debrady.com to learn more about Dennis and his art.



Happy Fall Y'All

Mixed Media Pumpkin

Design, Fabrication, and Text By Mary Hong



I'm a glass artist who started painting one day. Working with glass for many years, I fired it in my kiln, creating large-scale mosaics while loving every minute of it! I never thought I'd want to do anything else, but painting on canvas solved many problems for me. There were no more crazy firing schedules and no more cracks. I could go huge without all the weight, and I had a new love. I started out in mixed media, adding paper ephemera to my paintings along with rusted metal and lots of texture, but I still had all of my glass.

Why couldn't I put that on my paintings? The answer to that question began a process that has evolved into an entirely new way of making art with glass. It's called ShardWorx™, which is artwork made with glass on a painted surface. The result is intoxicating, addictive, and fun. I've taught thousands of people how to make ShardWorx™ art, and this tutorial will help guide you through the process. Here's a great project that anyone can do using a repurposed orange vase and beer bottle.

Glass

Broken Orange Vase
Broken Beer/Wine Bottle

ShardWorx.com

Glass Nippers

Sanding Stone

Crushed Glass in Orange, Red, and Green
Bubbles

Single Use Resin Pack

Tools and Materials

12" x 12" Stretched Canvas Chalk

Acrylic Craft Paint Safety Glasses

Foam Brush Wooden Stick

Pushpins Heat Gun

Plastic Sheet or Trash Bag

Nitrile Gloves Scissors

1



2



3



4



5



6



7

8

9



10

Nipping a cross-section of the bottle will yield a shard that has a natural curve to it and will work perfectly as a leaf. Keep adding curved pieces to simulate a curly vine at the top. Place green shards at the bottom to “ground” your composition. Use crushed green glass to fill in around the larger green shards. Finally, add the clear bubbles to the entire piece to add “fluff” to the appearance of the glass.

Place the finished canvas on a plastic tray to ensure that the pushpins are keeping it elevated off the surface.

11



Prepare your epoxy resin while working in a well ventilated area away from children and pets.

12



Epoxy resin is a 50/50 mix. You will need 8 ounces of resin to cover one square foot. In this tutorial, I’m using an 8 ounce Shardworx.com Single Use Resin Pack (SURP), which takes a lot of the guesswork out of measuring and mixing. Grab each end of the SURP and pull apart. This releases the clip in the middle that is separating the resin and the hardener.

13

Manipulate the bag constantly for a full three minutes to ensure that both liquids are thoroughly mixed together.



It’s normal for the liquid to appear white or cloudy.

Use the scissors to cut the very corner of the plastic bag so that the opening is about the size of a pencil tip.

14



15

Hold the bag and slowly drizzle the resin in a thin stream over all of the glassy elements of your artwork.



Completely cover all of the glass. When the bag is empty, throw it away.

16

Use your gloved fingers to gently smear the resin into the bare areas of your canvas and push the resin over the sides of the canvas.



When the resin has completely covered the glass and the canvas, remove and discard the gloves.

17

Use a heat gun to pop any air bubbles.



Quickly move the heat gun back and forth over the canvas at about 3 inches above the surface. You will see very small bubbles pop and the resin will become clear like glass. Leave your artwork on a flat, level surface for 12 hours, then remove the pushpins, and your masterpiece is ready to hang. Enjoy!

GPO

Artist Portrait
by Romona Robbins



Mary Hong is the founder, dreamer, and creative innovator behind ShardWorx™ Art Kits. A professional artist for over 25 years, Mary’s artwork is sold worldwide in luxury galleries, home furnishing showrooms, and online at MaryHongStudio.com.

In 2015 after many years of teaching her techniques using glass on canvas, Mary opened The Shard Shop, her first make-your-own art studio, in Grayton Beach, Florida. In 2018, she opened three more shops in Destin, Florida; New Orleans, Louisiana; and Nashville, Tennessee. The ShardWorx™ brand of art kits soon followed so that everyone can see how much fun art can be when glass is the inspiration. For Mary’s exciting line of art kits, glass supplies, and video tutorials visit Shardworx.com.

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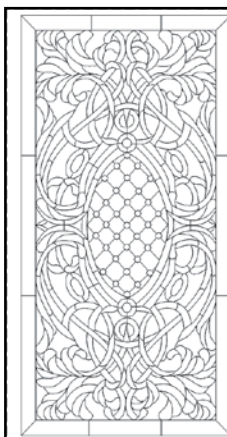


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Fine Grit Emery Cloth or 400-Grit Sandpaper

ZYP® Boron Nitrite Mold Release Spray

2 Cup Plastic Container with Lid

Zipper-Type Plastic Sandwich Bags

Chlorine Bleach Masking Tape (optional)

Respirator Mask or Other Breathing Protection

This set of plates was created using the Glass Tattoo Stencil System that has been under development at the Wardell Glass Studios for over a year and a half. Some of you may remember "Festive Lights Bowl With Cast Foot," an article that appeared in the Fall 2016 issue of *Glass Patterns Quarterly*. For that project I hand cut 1/8"-thick fiber paper and created a stencil to hold powdered frit for making the light bulbs. That is when the light bulb went on in my own head, and I started to think about how I could create reusable 1/8"-thick clear acrylic stencils to achieve the same effect.

Using stencils made from fiber paper works, because the powdered frit is confined to the shape of the fiber paper cutout while it is melting inside the kiln. Acrylic stencils and powdered frit did not work so well outside the kiln, however, because when the stencil is lifted, the powdered frit does not hold the shape. I began to search for a way to hold the design shape of an acrylic stencil after the stencil was lifted until it was melted in the kiln and tried dozens of different gel products. None of them worked satisfactorily until I discovered a special type of food grade gelling product that was not sticky. That meant it wouldn't stick to the stencil, but it still held its shape perfectly until the project was loaded into the kiln and fired. That is how our Glass Tattoo Gue product was born.

Powdered glass frit is mixed in equal parts with the Glass Tattoo Gue, then the color mixture is loaded into 4-ounce squeeze bottles with applicator tips. The secret to the Glass Tattoo System is the ability to precisely fill the stencil cavities with the color mix that you want, and the squeeze bottles are the key. As you will see, colors can be mixed in any combination that you choose, enabling you to blend and comb the colors while they are still wet. After the designs are fired, the color blend effect is nothing short of stunning.

I wanted to keep these small plates lightweight and easy to use for hors d'oeuvres, so I fired the designs on a single layer of 1/8"-thick glass. Let's get going so you can see how easy it is to create amazing designs using the Glass Tattoo Stencil System.

Mixing the Glass Tattoo Gue

There are seven stencils altogether—CS309 Goldfish Fantail, CS311 Turtle Spiral, CS320 Back-At-Ya-Cat, RW215 Single Poppy, RW216 Flamingo, RW217 Bonsai Tree, and the RW218 Flip Flops stencil that is shown in the how-to portion of this tutorial. If you intend to use all 7 stencils, you will need to mix up two batches of Glass Tattoo Gue.

It's best to mix the Glass Tattoo Gue in a 2 cup lidded plastic container. I get mine 2 for a dollar at the dollar store. Pour 1 cup of room temperature water into the mixing container. Then measure 1 teaspoon of chlorine bleach and mix it with the water. Glass Tattoo Gue is an organic food product, so the chlorine bleach will inhibit mold growth and extend the shelf life of your color mixes. The frit will stay suspended in the mix so there is no need to keep stirring or shaking it, and it will not mold for at least 3 months.

1

Sprinkle the contents of the Glass Tattoo Gue packet across the surface of the water.



2

Place the airtight lid securely on the container, give it a good shake, and label the container with the initial mix date.



You will notice that the Glass Tattoo Gue powder and the water do not mix well together, but don't worry. Simply set the mixture aside and wait 6 to 8 hours. When you come back, you will be amazed that it will be fully emulsified into a creamy, thick gelatinous mixture.

Creating the Glass Tattoo Gue Colors

It's good to have a selection of 8 to 12 colors premixed and sealed inside your squeezable dispenser bottles. Glass Tattoo Gue works perfectly well with either COE 90 or COE 96 glass powder. Just make sure that the frit powder you are using is the same COE as the base glass. You can use transparent or opalescent powders with Glass Tattoo Stencils, but we have found that opalescent colors generally give more contrast and stand out better against a variety of background colors. ***It is essential that you wear a respirator mask or other breathing protection when you are working with glass powders to create the colors for the Glass Tattoo Gue mixture.***

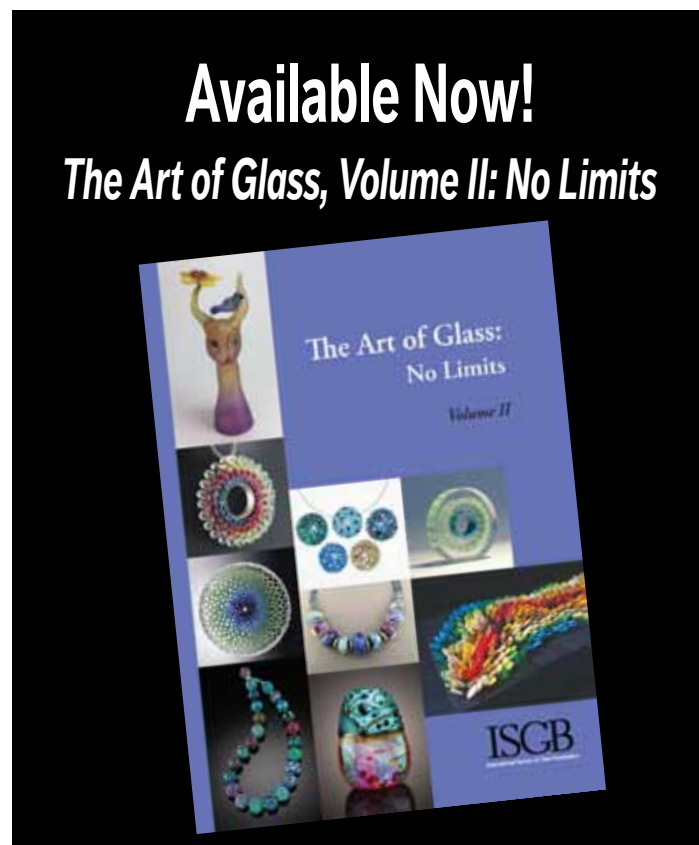


3



Always mix mix one part Glass Tattoo Gue with one part glass powder.

To create all 7 stencils in this project, you are going to need 3 tablespoons of Glass Tattoo Gue and 3 tablespoons of glass powder for each of the 8 colors to yield enough color mix.



ISGB
International Society of Glass Beadmakers

Print and Digital versions available from ISGB.org

4

Use plastic zipper-style plastic sandwich bags for mixing the various colors.



Using small self-sealing plastic bags is the easiest way to mix the powder with the Glass Tattoo Gue. Open the bag, place 3 tablespoons of Glass Tattoo Gue inside, then scoop 3 tablespoons of the powder and place it in the bag with the Gue. Try to remove most of the air space inside the bag, carefully zip it closed, and start squeezing and squishing the bag to mix the powder and the Gue until it is combined completely.

5

Fill the squeezable dispenser bottle with the colored Glass Tattoo Gue mixture.



Take the top off of one of the dispenser bottles and use a pair of scissors to cut one of the bottom corners off of the plastic bag to create a small hole. Be careful to keep the hole small. Place the hole over the opening in the dispenser bottle and squeeze the Glass Tattoo Gue color into the bottle. Put the lid back on, turn the bottle upside down, and place it in the bottle caddy to allow the color mixture to flow into the dispenser tip.

Continue to mix the Glass Tattoo Gue and glass powders until you have your desired assortment of colors. For some of your favorite colors, you may want to mix 5 or 6 tablespoons of Gue and the same amount of glass powder, since you will tend to use more of those. When you have your selection of colors mixed up, you are ready to start creating the stencil tattoo.

Preparing the Glass Tattoo Stencil

The Glass Tattoo Stencils are now ready to go once you add a couple of pull tabs. That will enable you to pick the stencil straight up after you have loaded it with the Glass Tattoo Gue colors. The easiest method is to use 2 Glass Tattoo Suction Cup Tabs, but you can also create tabs using masking tape.

6

Determine which way you would like the stencil to go.



Most stencils are reversible except for the ones that have lettering.

7



Test the tabs to make sure they are well balanced and apply them to the stencil.



Apply the pull tabs at opposite corners of the stencil to help hold and position it on top of the base glass. If you're using the Glass Tattoo Gue Suction Cup Tabs, simply wet them and stick them down. If you're using masking tape for the tabs, pull off a 1-1/2" length of tape. Fold the center of the tape onto itself to create a tab, leaving two sticky tails at each end, then stick it onto the stencil.

Applying the Tattoo to the Glass

It is very important to not touch the body of the stencil with the tip of the squeeze bottle while you are filling the cavities. With a little practice you will find you can hold the stencil quite securely with one hand while you apply and smooth the colors with the other hand. I would advise doing a few practice runs using a single color to fill and smooth all of the cavities in one stencil.

Use the palette knife to scrape the Glass Tattoo Gue color off of the stencil, put it back into the squeeze bottle, and practice again. Do this several times until you feel confident enough to try a multicolor mix. When you're ready, start creating your first stencil design.

8

Choose a Glass Tattoo Gue color and fill every cavity where you plan to use it with just enough of the color to come to the top of the stencil.



Be careful to keep that color out of any adjoining cavities. Continue to fill each cavity in the stencil with the color of your choice.

9

Use the palette knife to smooth the surface of the Glass Tattoo Gue color so that it's level with the top of the stencil.



If you have too much color, scrape it off using the knife and put it back into the squeeze bottle. Gently hold the stencil steady to keep it from moving around as you're leveling off the top. Don't be afraid to mix colors within a single cavity to create a multitone blended design. This is your time to be creative.



10

Remove the stencil and check to see how successful you were.



When all of the stencil cavities are filled and smoothed with Glass Tattoo Gue color, carefully grasp each pull tab between your thumb and index fingers and *slowly* pick the stencil straight up. The slower you pick it up, the cleaner the edges will be, giving your design a nice crisp edge.

Firing the Glass Design Disk



11

Place the design in the kiln and fire using a contour fuse firing schedule.



Put the glass with the tattoo design into your kiln on a prepared kiln shelf. The Glass Tattoo colors must be dry before they are fired, or you risk thermal shocking the base glass. It takes about 8 hours for the Glass Tattoo Gue to dry completely and become hard. If you do not have the patience to wait for the color to air dry, you can add an extra step to the beginning of the firing schedule to dry the tattoo design. (See Segment 1 in the schedule below.) This will dry the color and give the kiln enough time to burn off the humidity. After that initial drying step, you can use a standard firing schedule to fire the glass to whatever level you would like.

You could tack-fuse, texture-fuse, contour-fuse, or full-fuse the dish depending on your artistic or creative desire and how you intend to use the final piece. These plates are only a single layer of glass. We don't want to take them to a full-fuse or they will shrink too much, so we'll fire them to a contour fuse level. Here is the schedule that we used in our fire-brick kiln. Remember that each kiln fires different, so you may need to make adjustments to this schedule for use with your own kiln.

Contour Fuse Firing Schedule

Segment 1: Ramp 90°F/hr to 150°F and hold 60 min.

Segment 2: Ramp 350°F/hr to 1150°F and hold 10 min.

Segment 3: Ramp 600°F/hr to 1380°F and hold 10 min.

Segment 4: Ramp 9999 (AFAP*) to 900°F (or 950°F for 96 COE) and hold 90 min.

Segment 5: Ramp 200°F/hr to 200°F and off.

*as fast as possible

Shape-Firing the Design Disk

These two beautiful side dish plates were shaped on a 6" x 1/2" Wardell GTST6 Stainless Steel Round Plate Mold. The first step is to prepare the mold with the appropriate release. The only mold release that we use in our studio for both ceramic and stainless steel molds is ZYP Boron Nitride Mold Release (formerly MR-97). It comes in a convenient spray can and works fabulously for casting or shaping molds of any kind.

12

Prepare the stainless steel molds.



New stainless steel molds have a smooth, shiny surface that makes it difficult for the mold release to stick. Use a piece of fine grit emery cloth or superfine (400 grit) sandpaper to remove the shiny surface. Don't be too aggressive. You don't want to leave any heavy scratches that could imprint onto the glass.

13

Spray a light, even coat of ZYP Boron Nitride Mold Release onto the prepared surface of the mold.



Let the first coat dry for 20 minutes, then spray a second light, even coat and let that dry for 20 minutes. For subsequent firings on this mold, simply remove the loose powder from the surface with a soft bench brush and apply one light, even touch-up coat.

14

Place the stainless steel mold on a shelf in your kiln and carefully center one of the contour fused design disks on the mold.



Be very careful that you don't scratch the ZYP mold release as you're placing the glass, since the glass can stick to any exposed stainless steel during a shape firing.

*Fire to slump
the disk.*



Close the kiln lid and set the controller for a slump firing. Here is the schedule we used in our fire-brick kiln, but again, adjust it as necessary for your own kiln. **GPQ**

Slump Firing Schedule

Segment 1: Ramp 300°F/hr to 500°F and hold 30 min.

Segment 2: Ramp 500°F/hr to 1335°F and hold 10 min.

Segment 3: Ramp 9999 (AFAP*) to 900°F (or 950°F for 96 COE) and hold 90 min.

Segment 4: Ramp 200°F/hr to 200°F and off.

*as fast as possible

Tips on Kiln Size and Multiple Firings

The kiln used to produce the plates shown in these photos has a 15" diameter by 6" deep firing chamber. The kiln shelf is 13" in diameter. As you can see, we can fire two of these 6" diameter design disk plates at the same time. If you have one of the smaller 8" square tabletop kilns, you can use that kiln to make these same plates, one at a time.

Randy Wardell has been in the art glass industry for more than thirty-five years and has done it all, from teaching to retail supplies and a custom glass studio all the way to managing a major glass wholesale warehouse. In 1983 he founded Wardell Publications Inc to produce instruction and pattern books for the glass craft industry. Randy is the author of twelve books, and his company has created and released more than fifty published products into the market. He is a writer, editor, teacher, and frequent contributor to art glass magazines and informational websites.

Carole Wardell's introduction to stained glass was from a local retail supply store in 1979. She especially liked the appearance and workability of lead came, and it became the preferred technique for her designs. She founded Glass Reflections in 1986, initially to make fused glass jewelry, but she expanded the business to include custom entryways, architectural windows, and ecclesiastical installations. Carole has authored two books featuring her work, Windows of Elegance I and II. She also assists at Wardell Publications with book layout and production, participates at stained glass trade shows and distributor events, and is a lecturer and instructor. She still loves to get in the studio. You can see her latest fused glass projects created with husband Randy in their newest book, Joy of Fusing.

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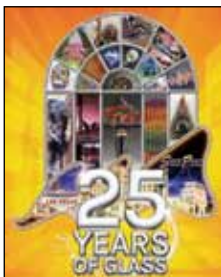
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The **Glass Craft & Bead Expo (GCBE)**, which will be celebrating its 25th show in



2019, and the **International Society of Glass Beadmakers (ISGB)** will once again be holding its **annual conference** during the same week in April 2019.

ISGB will be holding its annual conference, The Gathering, April 2-7, 2019, and Glass Craft & Bead Expo classes will be held April 3-7, with the tradeshow running April 5-7. ISGB will add to the tradeshow with its Glass, Beads & Jewelry Bazaar on Saturday, April 6, with all of these events taking place in one location at the South Point Hotel & Casino in Las Vegas, Nevada. While the two events still operate independently of one another,

the partnership offers additional educational and shopping experiences for glass enthusiasts. Details on each of these events will be available in the fall. Visit the GCBE and ISGB websites for more details.

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Kiln Corner

The Mystery of the Overfired Kiln

by Arnold Howard

Photography Courtesy
of Paragon Industries, L.P.

Though Arnold Howard works for Paragon Industries, L.P., the information here applies to all brands of glass kilns. Feel free to send questions for this column no matter what brand of kiln you own.

A customer's digital kiln fired perfectly for 20 years. Then it began to fire 150°F (83°C) hotter than normal. The customer took the kiln to her dealer, who replaced the thermocouple, the relay, and the temperature controller. These are the main components of the control box. The thermocouple senses the temperature in the kiln, the controller receives that temperature from the thermocouple, and the relay sends power to the elements when more heat is needed.

Long-Distance Troubleshooting

Even with the new parts, the kiln still fired 150°F (83°C) too hot. We asked the customer these questions by speaker phone: "How old is the kiln? When did it start overfiring? What colors are the thermocouple wires?" The wires were red and yellow, which is correct for her K-type thermocouple.

We eventually discovered through FaceTime that the thermocouple wires were connected to the wrong terminals on the back of the controller. The red wire was connected to the yellow terminal, and the yellow wire to the red terminal. Ordinarily that will cause the temperature in the controller display to go down as the kiln heats up and give an error message, but that wasn't happening. The temperature in the display window went up as the kiln heated and down as it cooled.

Discovering the Solution

What caused the overfiring? The thermocouple is attached to an oval, ceramic connection block inside the kiln's control box. The kiln was about 20 years old, and the red and yellow paint on the connection block had faded. The wires from the thermocouple had been connected to the wrong terminals on the ceramic block. This caused the temperature display on the controller to go down instead of up when the kiln heated.

The thermocouple wires had been connected to the correct terminals on the back of the controller, but because the temperature display was going down instead of up, someone reversed the wires. That made the temperature display go up as it should, but it introduced the 150°F (83°C) error. The kiln operated normally only when the thermocouple wires were placed on the correct terminals at the thermocouple block and at the back of the controller.

GPO



The thermocouple and the thermocouple wires going to the controller are color coded.

The thermocouple connection block is easy to find. Look for the thermocouple in your kiln. It is a small rod. The block is on the other side of the kiln wall.



This shows the back of the temperature controller. The thermocouple wires are at the bottom right of the photo. They give the controller a continuous temperature reading from the firing chamber.

Arnold Howard writes instruction manuals and advertisements for Paragon Industries, L.P. His hobbies are glass fusing and karate. He also enjoys studying history and watching classic movies. You can reach Arnold at ahoward@paragonweb.com with questions for future columns. Sign up for his kiln newsletter at www.paragonweb.com.

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