

# GLASS PATTERNS

— • Q U A R T E R L Y • —

Winter 2018

Volume 34 • No. 4

## Wildlife and Landscape Issue

### Stained Glass

**Ocean Voyager**  
**Japanese Fantasy**  
**Giraffe Panel**

### Fused Glass

**Inspiring Tray**  
**Coral Bowl**  
**Stringer Blanket**  
**Button Bicycle**  
**Vitreous Enamel**  
**Pendant**  
**Alcohol Ink Crow**  
**Stand-Up Elephant**  
**Memories of Whidbey**



Volume 34 No. 4

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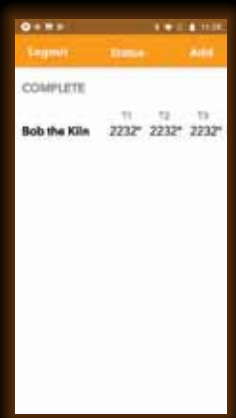
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**Publisher** ~ Maureen James

**Editor** ~ Delynn Ellis

**Graphic Artists** ~ Dave Burnett,

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**Accounting** ~ Rhonda Sewell

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**Copy Editor** ~ Darlene Welch

**Advertising** ~ Maureen James

**Contributing Designers and Writers**

Aanraku Glass Studios, Jean Beaulieu

Erica Biery Collins, Marianne Crivellaro

Delynn Ellis, Glenda Ferguson

Leslie Gibbs, Arnold Howard

Lori Hudson, Susan McGarry

Chantal Paré, Cristina Schnellboegl

Roz Stanton, Darlene Welch

Pat Wilde, Wesley R. Wong

Dana Worley

**GLASS PATTERNS QUARTERLY**

Issn 1041-6684, is published quarterly

by Glass Patterns Quarterly, Inc.

8300 Hidden Valley Road,

P.O. Box 69, Westport, KY 40077

**POSTMASTER** Send address  
changes to *Glass Patterns Quarterly*,

8300 Hidden Valley Road,

P.O. Box 69, Westport, KY 40077

**Telephone** 502-222-5631

**Facsimile** 502-222-4527

**E-Mail** info@glasspatterns.com

**Graphic Transfer**

info@glasspatterns.com

**Website** GlassPatterns.com

**Subscriptions** \$24 for one year,

\$43 for two years, and \$61 for three years

Sample issues U.S., \$8 Outside U.S., \$12

Sample issues Airmail, \$14

Kentucky residents, add 6% state sales tax.

Outside the U.S., add \$5 per year

for international postage.

All subscriptions must be paid in U.S. dollars

with an international money order or

with a check drawn on a U.S. bank.

Periodicals Postage Paid

at Westport, KY 40077 and additional

mailing offices. Back issues \$6

plus shipping and handling.

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## From the Editor

### Smiles, Everyone

One of the things I notice as I look at photos of completed glass projects posted on various media, whether in print or on the Web and social media, is the radiant smiles of the creators. The cutting, soldering, fusing, grinding, painting, and repairing—followed by a sigh of relief—is all part of the “deal” when working with glass. Hands down, the most rewarding part is when a piece is finished! Then you are ready to sell it, gift it, or hang it. The zing of accomplishment is forthcoming as your friends marvel at your handiwork. That smile can last for days, weeks, and hopefully years to come for the creator and recipient, alike.

With the *Glass Patterns Quarterly* winter issue, we serve up the best wildlife and landscape designs submitted by our rock star contributors. Through the years of working for *GPQ*, I have found that the wildlife theme never gets old for glass fabricators, since the color, texture, and striations of glass lend themselves perfectly to fashioning feathers, fur, and the great outdoors.

We hope the pages ahead will bring a smile to *your* face. The *GPQ* staff has worked diligently to find thoughtful patterns for the winter months ahead. We have a variety of stained glass techniques for you to try from painting to copper foiling. A bevy of fused glass projects await as well.

Let me encourage you to try crossover techniques that you may not have used before. Stained glass artists, don't be afraid to use your precision cutting skills to make awesome fused projects. Fusing artists, ramp up your projects and try painting on glass or adding dimension with custom molds and mixed mediums.

Keep in mind that the Glass Craft & Bead Expo, in Las Vegas, Nevada, is coming up April 3–7, 2019. This is a great time to brush up on new and interesting techniques. If you don't want to travel, consider the *GPQ* Glass Expert Webinars™. This is a fantastic way to expand your techniques and interests, all from the comfort of your own home.

The staff at *Glass Patterns Quarterly* wish you a happy and prosperous 2019, worthy of endless smiles. We will continue to strive to partner with you in your glass endeavors.

Happy glassing,

*Delynn Ellis*

Delynn Ellis

Managing Editor



Inspiring Fused Tray  
by Erica Biery Collins



### Upcoming Submission Deadlines

**Summer 2019** *Slice of Summer - A Nostalgic Look at Scenes of Summers Past and Present*

Editorial February 20, 2019

Ad Closing April 20, 2019

Ad Materials April 30, 2019

**Fall 2019** *Autumn, Halloween, Christmas, and Holiday Ornaments*

Editorial May 20, 2019

Ad Closing July 20, 2019

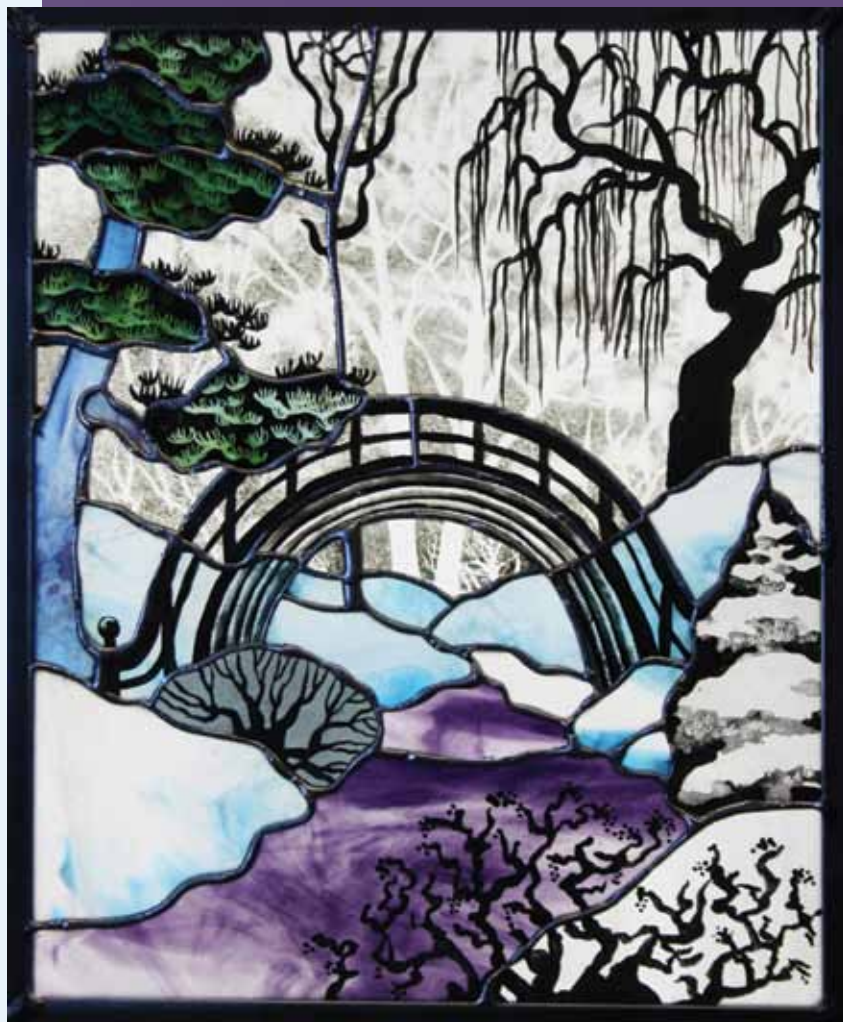
Ad Materials July 30, 2019

# Glass Patterns Quarterly

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*Above: Tea Bridge Winter Fantasy by Chantal Paré.*

*On the Cover: Memories of Whidbey Island by Dana Worley,  
Details of Ocean Voyager by Leslie Gibbs,  
Coral Bowl by Cristina Schnellboegl, and  
Oscar and Kayleigh by Pat Wilde.  
Gibbs photo by Jon Gibbs.*

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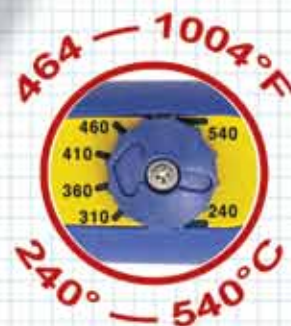
## FX-601

### ADJUSTABLE TEMPERATURE CONTROL

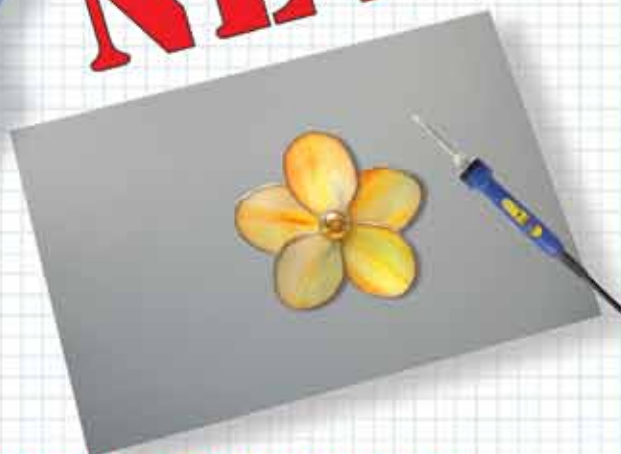
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# Ocean Voyager

*Design, Fabrication, and Text by Leslie Gibbs*

Photography by Jon Gibbs



Although there are 260 kinds of turtles in the world, there are only seven species of sea turtles. Unfortunately, all seven of these species are listed as either endangered or threatened. Living in coastal Florida, I soon learned about nesting season, which is May through October, how to avoid harming the hatchlings, and how to respect, protect, and celebrate the resolve of these ancient sea creatures.

In the ocean, sea turtles are graceful swimmers, and their paddle-like flippers move like wings in the water. On land, however, moving is a lot more difficult. In spite of this, the female sea turtle will return to the same beach where she was born, sometimes 20 or 30 years later, in order to dig her nests. The eggs that survive their many predators will hatch in about two months. Then begins the hatchlings' frantic race to the sea following the light of the moon.



The green sea turtle is the largest hard-shelled sea turtle, growing from a two-inch hatchling weighing about half a pound to an adult size of three feet long and weighing 300 to 350 pounds. It is the story of these amazing reptiles that I am attempting to translate through the magic of glass.

Before you begin cutting the glass, decide how you will frame the finished 18" round panel. You can choose to simply wrap the border in zinc or lead U-channel, but I chose to wrap the finished panel in lead, then place it in a custom wood frame.

It is difficult to find round wooden frames for stained glass these days, but I discovered an excellent resource in Crone's Custom Woodworking ([www.cronescustomwoodworking.com](http://www.cronescustomwoodworking.com)). They do exceptional custom work, and you can visit the company's website to select the type of wood, stain, size, and framing profile you would like from their menu. I chose a double sided round frame for stained glass with a high-gloss finish in vibrant green, since I did not want the turtle to appear to be boxed in by framing. Rather, I wanted to have the framing be an extension of the green sea.

### Required Glass

Dark Green/White Wispy Iridescent  
for Lower Background and Eye, 12" x 12"

Teal Green/White Wispy Iridescent  
for Upper Background, 12" x 6"

Emerald/Chartreuse/Turquoise Green  
for Lower Background Ripple Section, 13" x 4"

Aqua Blue/Sea Green/White  
for Upper Background Smooth Ripple, 6" x 12"

Emerald Green/Spring Green/ Light Green Streaky  
for Flipper Backs and Underbody, 8" x 10"

Turquoise Blue Transparent Double-Rolled Iridescent Rain-  
bow for Border, 12" x 12"

Green/Magenta Ripple on Clear Dichroic  
for Dichroic Water Ribbons, 5" x 6"

Teal/Pink Ripple on Clear Dichroic  
for Lower Background Water Ribbons, 4" x 5"

### Additional Glass

Assorted Beveled Gems and Nuggets (7)

Glassmith Studio Green Turtle Bevel Cluster, 1" x 9"

Dichroic Ripple

### Tools and Materials

Kem-O-Pro Polishing Wax

Soft Cleaning and Polishing Cloths

Bostik Blu-Tack Reusable Adhesive

Horseshoe Nails X-Acto® Knife

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

Cotton Swabs Old Toothbrush

Black Patina U-Channel Lead Came

Scissors Flux and Patina Remover

18" Circle Template Black Waterproof Marker

1/4" and 1" Grinding Bits Old Towels

1

*Prepare  
the pattern.*



Make two copies of the pattern, one for layout and the other for cutting. You can also cover the layout pattern in clear contact paper to protect the design from solder burns and flux.

2

*Adjust the  
pattern for  
inclusions.*



Place the 18" circle template on the pattern and lay out the gems you have selected. They can be beveled gems or iridized nuggets. It's up to you. Place the gems, along with the bevel cluster on the pattern and with a black waterproof marker, outline both the gems and the bevel cluster to make adjustments for odd sizes. Number both the gem and its place on the pattern, which will really help when you go to place the gems after the background glass is cut and ground.

3

*Clean all  
of the beveled  
sections, let them  
dry, and assemble  
the pieces on  
the pattern.*



4

*Foil each  
section of the  
turtle bevel cluster  
and place the pieces  
on the pattern as  
closely as possible.*



5

*Solder the  
turtle bevel  
cluster together.*



Check the pattern again to make certain the cluster did not "grow" after soldering.

6



If it has, make adjustments to the background using your black marker.

7

Cut all of the background, eye, and border glass pieces.



Use the adjusted lines around the turtle and gems to create a perfect fit. Be sure to cut the dichroic ripple glass with the dichroic side down.

8

Grind and clean all the background and border glass pieces.



Foil the background and border glass along with the gems and nuggets.

9



You may need to trim the foil for the gems with scissors.

10

Elevate the gems and solder the panel.



Using a small bit of Blu-Tack kneadable adhesive, elevate the gems in place to prevent them from shifting and to keep them from "sinking" into the background glass. Then turn the panel facedown to access the back of the panel for soldering. I place the glass on an old towel to protect the glass from scratches during this procedure. Remove the Blu-Tack adhesive and solder the back of the panel.

11

Wrap the lead or zinc around the panel and secure it in place with horseshoe nails.



Solder the metal framing where it connects with each solder line in the panel. If you choose to not use a wooden frame, you can add hanging hooks to the panel at this point. Since the panel is heavy, do not solder the hooks onto the metal framing. Instead, use two points inside the back of the window near the metal framing.

12

Using a soft cloth or cotton swabs, apply black patina to both the metal framing and the solder lines.



Clean both sides with flux and patina remover and let the piece dry.

13

Polish both sides of the panel.



With a clean, soft cloth, add glass polish on both sides of the panel. When dried to a haze, use another clean cloth to polish the glass. The ripples can be cleaned and polished using an old toothbrush.

Sea turtles face many threats in their journey. It is estimated that as few as one in 1,000 hatchlings will survive to adulthood. Threats to these amazing reptiles come from both natural and human sources. We can help these creatures survive by removing any debris from the water and disposing of plastics, such as plastic bags, which the turtles often mistake for jellyfish, their favorite food. Also properly dispose of any damaged fishing nets, lines, and hooks. Hopefully, the image of this beautiful creature on its ocean voyage will bring you pleasure and enhance the understanding of our unique undersea world.

**GPO**

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 B. RMT-SS Round Top  
 C. FMT-SS Flat Top



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 B. RKH Round Flat  
 C. FKH Flat



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 GB34R100 3/4" Regular 100/120  
 GB34M170 3/4" Medium 170  
 GB34F220 3/4" Fine 220  
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- GB14R 1/4" Regular 100/120  
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TTT2 Tea Server Extension Kit  
 TTT1

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### Leaf Bails



- ITEM# NICKEL PLATED**  
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**ITEM# SILVER PLATED**  
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### Heart Bails



- ITEM# GOLD PLATED**  
 GJBL Large  
 GJBL Medium  
 GJBL Small  
**ITEM# .925 SILVER**  
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 GJBS Medium  
 GJBS Small

### Earring Bails



- ITEM# SILVER PLATED**  
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 SHBL Medium  
 SHBL Small  
**ITEM# GOLD PLATED**  
 GHBL Large  
 GHBL Medium  
 GHBL Small

### Pattern Bails



- ITEM# SILVER PLATED**  
 A. SPBL-H Hexagon  
 B. SPBL-H Hashmark  
 C. SPBL-L Leaves  
 D. SPBL-T Tortoise  
 E. SPBL-W Waves  
 SPBL-A Assorted (5 in 1)

### New Design Bails



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*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](http://www.facebook.com/lesliegibbsstudio) to learn more about Leslie and her art.*



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#### **CS-5630 Dimensions**

- Exterior with top closed: 70 1/2" W x 53" D x 52" H
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- 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

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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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Better  
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# Tea Bridge Winter Fantasy

*Design, Fabrication, and Text by Chantal Paré*



“Well, I know now. I know a little more how much a simple thing like a snowfall can mean to a person.” — Sylvia Platte

Stained glass is available in a bewildering variety of vivid colors and lends itself to riotous tropical scenes, bold flowers, and spring landscapes. The stark contrasts in winter landscapes with their cool, restrained palette may seem challenging at first, yet nothing renders the luster of freshly fallen snow and the inky darkness of a still, cold stream quite like the right art glass. The stark grace of leafless trees can be realistically rendered via glass painting. I chose Youghioghenny glass for this 11" x 13-1/4" piece because of its peerless watercolor quality, subtle coloring, and brilliance.

You may have recognized the iconic Tea Bridge from San Francisco's Japanese Tea Garden. While it's unlikely that it will ever be touched by a snowflake, I was compelled to use it because I believe it to be the most elegant bridge of its kind. I hope you enjoy painting and fabricating this piece as much as I did.



### Youghiogeny Opalescent Glass

1000-1A Sky Blue Artique, 1 Sq. Ft.

700-1A Gray Artique, Scrap

1660 SP Blue Stipple, 1 Sq. Ft.

16330 Purple Stipple, 1 Sq. Ft.

4644 Blue/Green Stipple, Scrap

### Additional Glass

3 mm Float Glass for Sky Pieces, 1 Sq. Ft.

3 mm Float Glass for Mixing Palette, Scrap

### Reusche Glass Paints

1059 Stencil Black, 2 Teaspoons

1220A Gray/Green, 1 Teaspoon

### Tools and Materials

Light Box Grinder Permanent Marker

1/4" Grinding Bit Gum Arabic

Ceramic/Glass Cooktop Cleaner

Masking or Electrical Tape

1" to 2" Paint Brush #5 Liner Paintbrush

Blunt Hog Bristle Brushes Badger Brush

Kiln Came Miter Saw 1/2" Zinc Frame

3/16" Black-Backed Copper Foil

60/40 Solder Soldering Flux

Flux and Patina Neutralizing Spray

Pretinned 14-Gauge Copper Wire

Finely Woven Cotton Rag

To grind down some of the finer undercuts, mount the 1/4" grinding bit on top of your regular grinding bit, which is usually 3/4". Keep the grinding bit cool with a wet sponge.

4

*Clean the glass pieces that require painting.*



Squirt some ceramic/glass cooktop cleaner onto the glass pieces, vigorously scrub the surface with a finely woven cotton rag, and rinse. Even a trace amount of industrial residue on the glass surface will impede the paint from sticking to the glass.

5

*Prepare the Stencil Black glass paint on a piece of scrap float glass.*



Add 2 teaspoons of Stencil Black and sprinkle a small amount of gum arabic about the size of a grain of rice. Add about 2 teaspoons of water and blend with a painting knife until creamy.

1

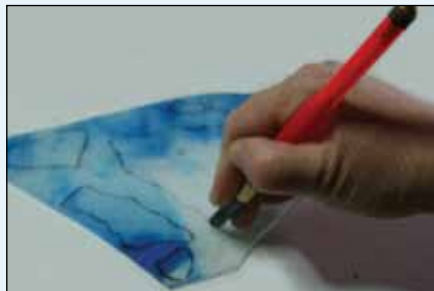
*Trace the pattern onto the glass pieces.*



Print a single copy of the pattern and trace out each piece of glass following the outlines with a permanent marker.

2

*Score just inside the marked lines and break until all the pieces are cut out.*



3

*Grind each glass piece with an electric grinder and a 1/4" bit to ensure a perfect fit within the pattern lines.*



6

*Completely cover the blue-green glass pieces that represent the clusters of pine needles with the gray-green paint.*



7

*Using a liner paintbrush, trace the black highlights of the design.*



8

*Using a sharpened wooden stick, scratch off some of the gray-green paint in the shape of pine needle clusters.*



Creating a sharpened wooden stick can be easily accomplished by putting the handle end of a paintbrush in a pencil sharpener.

9

Once the paint is dry, kiln-fire the pieces using the following firing schedule.



Since every kiln fires differently, you may need to make some adjustments to the schedule to fit your own kiln.

### Firing Schedule

Segment 1: Ramp 550°F/hr to 900°F and hold 5 min.

Segment 2: Ramp 9999 (AFAP\*) to 1150°F and hold 10 min.

Segment 3: Ramp 50°F/hr to 986°F and no hold.

Segment 4: Ramp 9999 (AFAP\*) to 950°F and no hold.

\*as fast as possible

After the kiln finishes the program, let it cool to near room temperature before opening.

10

Add a matte layer to the background pieces of the float glass sky, some of the snow pieces, and the purple stream.



Prepare the gray/green glass paint as you did in step 5 for the Stencil Black, sprinkling a sparse amount of gum arabic the size of 1/2 a grain of rice, adding more water this time to achieve a milky consistency. Using a 1" or 2" paintbrush, paint over a translucent layer one piece at a time. Spread the gray/green paint with a brush over the area and create a stipple with a badger brush by delicately daubing the paint a few times while the paint is still wet.

11

Using blunted bristle brushes, remove the excess matte to illuminate the lighter areas of the painted pieces.



Fire the glass pieces as in step 9.

12

Wrap each piece of glass with 3-1/6" black-backed copper foil and crimp the edges over the glass.



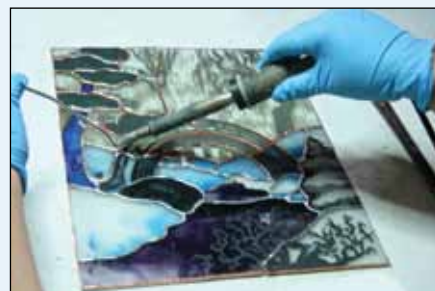
13

Using a carpenter's square, prepare a wooden jig to help keep the edges of the design straight.



14

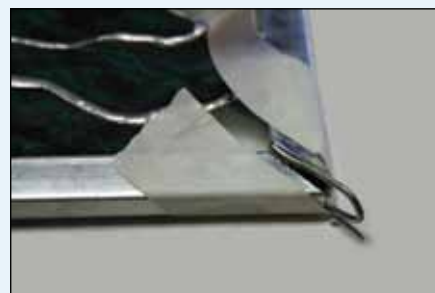
Solder both sides of the project.



Brush small areas with flux and solder leaving about 1/2" of the piece unsoldered around the edges to ease the placement of the zinc frame.

15

Add a zinc frame and hanging hooks to finish.



Using a saw, cut mitered pieces of zinc U-came to custom fit your project. Slide the cut U-came on each side of the project and join it to each lead line with solder. Zinc requires more flux and the effect of the flux is short-lived, so solder one joint at a time.

Nestle bent pieces of pretinned copper wire inside the top joints to serve as hooks. Use masking tape as solder resist to contain the solder in a narrow line. Clean your finished project with flux and patina remover.

GPO



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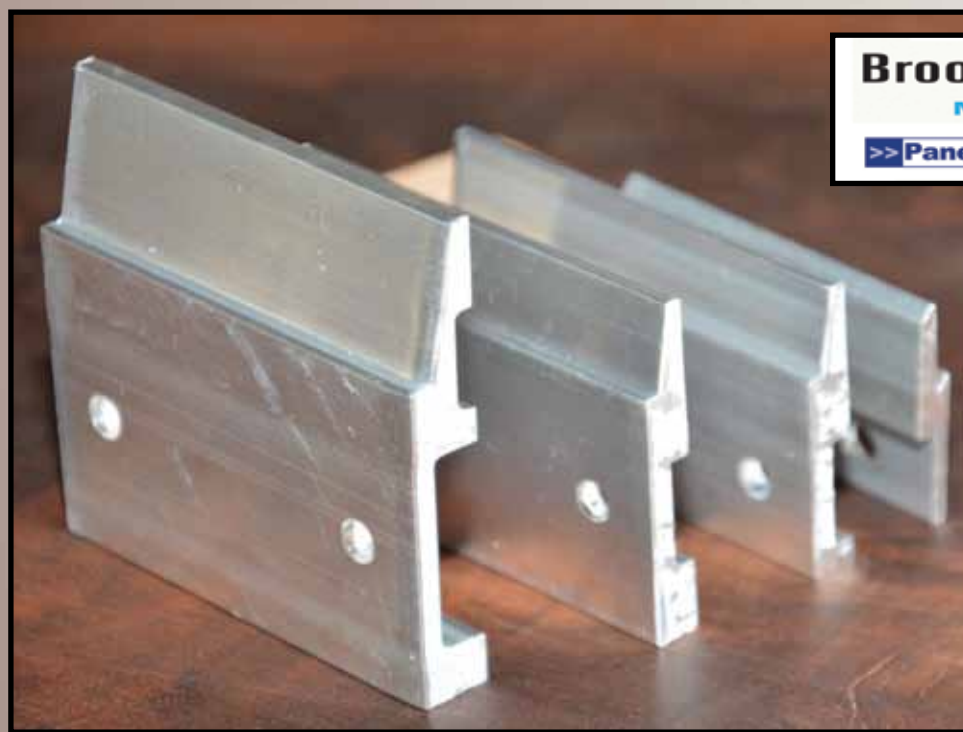
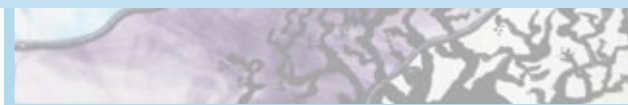
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Two decades ago, Chantal Paré quit the fast-paced world of molecular biology to devote herself to the full-time pursuit of glass. She's liable to melt it, blow it, break it, paint it, or cast it, sometimes just to show it who's boss. Nothing else comes 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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# Llamas on Trend

*Design by Jean Beaulieu, Text by Delynn Ellis*



**H**ave you noticed that llamas are picking up in popularity? These fuzzy, doe-eyed creatures normally found in the Andes Mountains of South America are the subject of whimsical art and trendy decor. Just walk into any department store, and you'll see a llama motif on just about anything from throw pillows to T-shirts. Data from Pinterest shows that that "Llama Home Decor" saves were up 1,000 percent from last year!

Artist Jean Beaulieu used his professional stained glass know-how to create this design especially for *Glass Patterns Quarterly*. Whether you are a llama fan or want to jump on a current decorating trend, this little beauty will be a fun project for sure. Visit [www.jeanbeaulieu.com](http://www.jeanbeaulieu.com) to check out more of Jean's pattern books, greeting cards, and acrylic frames.

**GPQ**

## **Wissmach Glass Company**

315-D Medium Amber/Dense Opal for Llama, 1 Sq. Ft.

191-D Medium Green/Dense Opal for Background, 1 Sq. Ft.

WO-57 Medium Green/Opal/Crystal Wisspy for Foreground, Scrap

EM34 Light Amber English Muffle for Sun, Scrap

58-D Medium Amber/Opal/Crystal for Sky, Scrap

325-L Light Amber Light Opal/Crystal for Sky, Scrap

## **Tools and Materials**

7/32" Copper Foil Flux Solder

Black Patina 1/4" Zinc U-Channel

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# Mama's Love

*Design, Fabrication, and Text by Glenda Ferguson*

Photography by Kelly Wlikerson and Phyllis Gleason



This panel, which I call *Mama's Love*, was made for a client's wife who is a giraffe fanatic and also loves anything in the color pink. I was honored to create a special piece of art for this client, who wanted to gift his wife with something unique that she would enjoy for years to come. When I was finished with the design, Sonya at [anypattern.com](http://anypattern.com) created the pattern for me.

To begin building the project, I had 3 copies of the pattern printed in the 16" x 48" size of the panel. Fortunately, I have a friend who runs a professional print shop and prints my patterns on heavy cardstock at no charge. The first copy is for glass placement, the second copy is for cutting out the pattern pieces, and the third is to have on hand in case a mistake is made and I need another pattern piece or if I want to make another panel using the same design.

## **Required Glass**

Brown, 2 Sq. Ft.

Brown Textured Glass, 1 Sq. Ft.

Waffle Brown, 1 Sq. Ft.

Cream, 2 Sq. Ft.

Gray, 1/2 Sq. Ft.

Pink, 4 Sq. Ft.

Purple, 1/2 Sq. Ft.

Black, Scrap

## **Tools and Materials**

Zinc Came Pushpins Black Patina

Soldering Iron Flux Solder

7/32" Black-Backed Copper Foil

Black Fine-Tipped Permanent Marker

Red Fine-Tipped Permanent Marker

Small Paint Brushes Adhesive Bandages

Fid Glass Cutting Oil Cotton Balls

Grinder Grozer Pliers Running Pliers

Hand Cutting Glass Blade Glue Sticks

Paper Towels Small Plastic Bags

Safety Glasses Shop Rags

Liquid Grease-Cutting Dish Soap



Use lengths of zinc came secured with pushpins to create a jig around the layout pattern.



This will help to keep the edges of the panel straight.

Cut out all the pattern pieces from one copy of the pattern and place them in a separate baggie for each glass color.



The pattern has different letters on every pattern piece to identify the color of glass to be used.

Use a glue stick to glue the pattern pieces from each baggie onto the correct color of glass.



It's important to lay out the pattern pieces going with the grain of the glass. Ask yourself if the piece needs to have a vertical grain or horizontal? I also like the pattern to be printed on thick card stock, because you can score really close to the pattern edge to help reduce additional grinding.

Cut out the glass pieces, then grind the edges to smooth the glass.



Make sure to dip the glass cutter wheel into glass cutting oil regularly. Place a cotton ball in a small container, pour a small amount of cutting oil on the cotton, and use it to dab the wheel.

Grind the glass pieces to smooth the edges. Remember that if you score the glass close to the pattern edge when cutting out the pieces, you will have very little grinding to do after you cut the glass. I grind all of my pieces so that they are nice and smooth.

5

Remove the paper from the glass.



After grinding each piece, place it in a tall plastic container with water and remove the pattern piece by gently rubbing off the paper. It should come off easily if you use a glue stick to attach the pattern pieces to the glass. Be sure to remember the pattern number that was on the glass, since you will need it to match the pieces to the pattern.

6

Place the glass pieces on the layout pattern.



Match the number that was on the glass piece to its corresponding number on the pattern. As you begin to put the pieces together, you may notice that you need to grind a little more in certain areas to get a better fit. Check to make sure that all of the pieces are snug, but not too tight. If the fit is too tight, when you add the copper foil it will cause some gaps between the pieces.

7

Clean the grinding dust from the glass and foil each piece with 7/32" black-backed copper foil.



There will be quite a bit of glass dust, so make sure to clean the pieces by dipping them in a bowl of water and grease-cutting dish soap, then dry them completely before foiling. Otherwise the copper foil won't adhere to the glass.

Take one piece of glass at a time from the layout pattern, apply the copper foil to the glass edge, and wrap it around the whole piece of glass. Crimp the foil along the edges of the glass and over the sides with your forefinger and thumb.

Lay the glass piece down on a flat surface and use a fid to roll over the foil that was crimped to ensure a smooth and tight bond on both sides of the glass edges. There should be no rough edges on the foil. You can use an X-Acto knife to trim any areas as needed to make the foil even.

Once the glass piece is foiled, return it to the layout pattern and continue until all of the pieces are foiled.

8



I allowed the panel to grow a little when adding the foiled pieces. Mark any areas with a permanent marker where the glass is past the edge of the panel and grind off the marked areas. Start slowly, because if you grind too much you will have to cut a new piece. After you have all of the pieces fitting together the way you like, step back and see if there are any pieces that might need more attention.

If the pieces are moving around, you can place pushpins where needed to keep the pieces together. *Note: If your panel will be framed, it's not necessary to foil the pieces that are on all of the outer edges. However, for this tutorial, I did foil all of the edges.*

9

Apply flux, solder all of the glass pieces, front and back, and clean the panel.



Soldering can be intimidating. Once you get the hang of it, however, you will enjoy seeing your art come to life.

Clean your work area. Pour flux into a small clean bowl and use a small paint brush to apply flux in small areas at a time on the copper foil. Tack-solder the glass pieces in a few areas to keep the pieces from shifting. Solder a nice bead of solder wherever you see foil. **Remember! Do not keep your hot iron in one place for too long or you will risk cracking the glass or burning the foil.** Let the area cool off, then return to touch up the solder bead as needed. Now turn the panel over and solder the other side.

You will notice the panel is very dirty from flux and solder beads. This panel is large, so I cleaned it outside using a bucket of warm water, a small amount of grease-cutting dish soap, and a soft cloth to scrub the joints to remove any debris. When it is clean, dry the panel gently. *Note:* I had someone help me carry the fragile panel to the cleaning area outside.

10

Apply black patina to the panel.



Have someone help you return the panel back to your clean work table. Place white craft paper or newspaper underneath the panel, since those can be thrown away after using the patina. Make sure to not get the patina on your clothes.

Shake the patina container, pour it into a small bowl, and use a clean paint brush to apply the patina to the solder. Magically, once the patina touches the solder it immediately turns black. (Isn't this fun?) Apply the patina liberally, then turn the panel over to do the back side as well.

Once the patina is completed and all areas of the solder are black, get help to return the panel to the cleaning area and rinse the panel gently with cool or lukewarm water and a small amount of grease-cutting dish soap. Gently dry the panel. Again, with help, return the panel back to the work area.

11

Use polish to shine the solder and glass.



Any brand of polish will work. Because this project is so large, it will take some time to polish all of the pieces, but it's well worth the effort.

My client is making a welded stand for this panel and asked me not to frame the panel. Otherwise, I would have added a 1/2" zinc frame with patina and attached hangers. Get help to take the panel outside and place it in the sunlight.

Now *smile* and feel proud that you created something that will be enjoyed by so many people, including yourself. I hope that those of you who commit to making this project will enjoy the process and appreciate its beauty once your panel is completed. **GPO**



*Glenda Ferguson took her first stained glass class in November 2017, because she had always loved this beautiful art. After finishing her very first 12-piece class project she was hooked. Her first solo project had 348 pieces and took her close to five months to complete. Her motto became, "Go big or go home!"*

*Glenda has worked at Pomona Valley Hospital Medical Center in Pomona, California, for nearly 30 years. She currently holds the title of Director of Development where she is responsible for the task of raising vital resources for the mission of the hospital. Glenda is truly enjoying her newfound love of creating stained glass art, and with each new project she is growing in her artistic talents. You can contact her at [glassbyglenda@yahoo.com](mailto:glassbyglenda@yahoo.com).*

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Jean Beaulieu offers stained glass pattern books in a multitude of themes for glass enthusiasts from beginner to expert, age 9 to 99.



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# Coral Bowl

## A Decorative, Functional Beauty

*Design, Fabrication, and Text by Cristina Schnellboegl*



A coral bowl is an interesting decor piece that can warm up the winter chill. This tutorial is instructional, but you can also experiment to create a unique bowl. We are using black glass and some glass luster, but you can use any other glass you like or have in your stock. Even the mold for the slumping process is not a must. Feel free to experiment with other molds, and you will get beautiful organic shapes.

### **Wissmach 96™**

92-02 Black Opaque Sheet Glass, 9" x 10-1/2"

### **Glass-Glo Luster**

GG-03 Blue

GG-08 Bright Gold

GG-05 Berry

GG-02 Purple

### **Tools and Materials**

Basic Glass Cutting Tools    Alcohol

Ruler    Prepared Kiln Shelf

Silver or Gold and Black Markers

Small to Medium Clean Flat Paintbrush

8" Diameter Stainless Steel Bowl, 3-1/2" Deep

220-Grit Silicone Carbide

ZYP Boron Nitride Mold Release Spray



1

Use the ruler and marker to mark off lines for 19 strips that are 10-1/2" long and 3/8" wide.



You will have an area on the glass left that is 10-1" long and 1-1/2" wide. You will need this piece later.

2

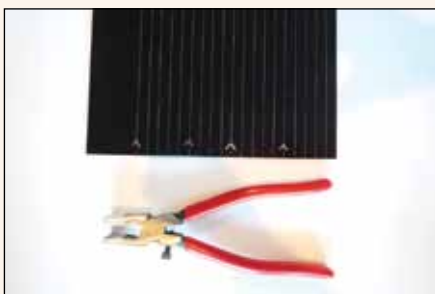
Score the glass along the marked lines, going from right to left.



For this you can use the Morton system or the ruler to get a nice, straight score. If you use the ruler, it's important to not apply any pressure on the score you have done before.

3

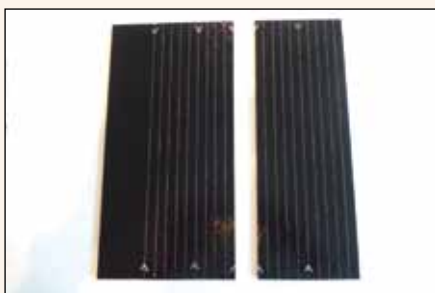
Remove the marker with water or alcohol.



This step is important because you can see where to place the running pliers better when cutting such long, thin strips. To remove the marks at this stage is also better than having to clean all of the strips separately.

4

Start in the middle of the sheet to break the strips of glass apart with the running pliers.



Apply just a little pressure with the pliers until you hear a click, then turn the glass sheet and do the same on the other end. If needed, turn the glass sheet again and try to break the glass, but never apply too much pressure. Keep turning the sheet until you can cut the glass easily. The first breaks take more time.

5

Break the glass into smaller and smaller pieces until you have cut all of the individual strips.



6

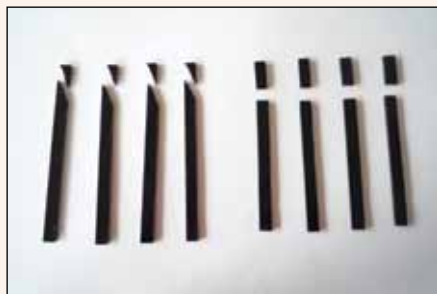
Make sure that you have at least 5 long strips that measure 10-1/2" x 3/8".



Don't panic if some of the strips break wrong, since smaller pieces will be cut from some of the longer strips.

7

Begin to cut the rest of the long strips into smaller pieces.



Cut 4 long strips in half so that you have 8 strips that are 5-1/4" x 3/8". Remove a long corner from 4 of the strips. From the rest of the 4 strips remove 1".

8

Cut a short corner from 2 of the shorter pieces and remove 2 little corners from the other 2 shorter strips.



This will give a centered peek on one end of your strip.

Place one long 10-1/2" x 3/8" strip and the 8 strips that were cut earlier on the pattern.

9



Cut one piece of glass 1-1/2" x 3" from the piece of glass that was left over in step 2 and remove all 4 corners.

10



Cut 10 little pieces 1" x 3/8" from one of the long strips and place all 10 pieces plus the piece from step 10 on top of your strips that are already on the pattern.

11



Now you have the skeleton of your coral bowl, which has 10 major branches. Starting from this point your imagination is requested.



12

For the remaining long 10-1/2" x 3/8" strips, cut them in shorter strips and cut off the corners from each strip.



At this step, it's up to you how you would like to develop your coral bowl. Strips with long corners like the first 4 strips will be closer to the skeleton branches, and the strips with shorter corners like the last 3 strips will be more away from other branches.

13

Continue to cut and place the smaller glass pieces until the design is finished.



Our advise is to not cut more than 2 or 3 long strips at a time into shorter strips and to remove different sizes of corners. Then place them on the pattern, finding the best place for your branches. In this way you can see step by step which other sizes you need to fill the skeleton with branches.

14

Review the placement of the branches.



At this step you are done with placing branches on your skeleton. Your Coral Bowl has a oval shape, 10-1/2" on the largest ends and about 9" on the shorter ends. Every major branch has ramifications, so try to get a different look for each of them. In that way, the end piece will be more organic like a real coral. At this step, you need to check to make sure that no branch from one of the major branches touches another branch from the adjacent branch.

So far we have placed glass strips on a pattern to get a coral shape. In most of the spots, our glass is just 3 mm thick. What will happen in the kiln during the firing? All our glass will contract, because glass wants to be 6 mm. This means that all the white you can see now between the branches will be wider. That's why it's so important to get as many branches as possible on the skeleton.



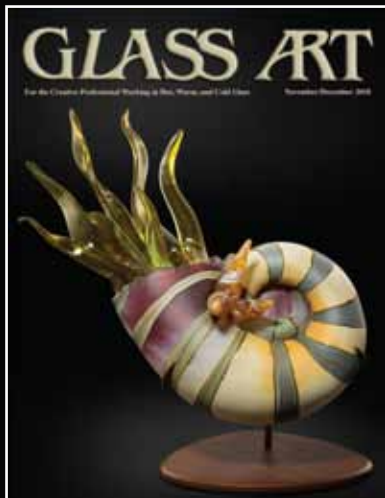
15

Place the corners that were cut from the strips on top of the seams to ensure a strong connection.



After cutting a bunch of corners from our strips we have to place all of them on top of all of the seams of the ramifications (branches). Placing these little corners on top of the seams will assure a strong connection between them. Not placing these chunks on top of the seams could mean that during fusing the branches will not fuse together as desired.





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16

*Place the piece on the prepared kiln shelf and fire to a full fuse.*



You can use kiln wash or ZYP, but thin fiber paper is not recommended. Now it's time to fire the bowl. We are looking for a full fuse, but we also want to keep the pattern as much as we can. This means that our fused piece will be not 6 mm thick, but rather somewhere between 3.5 mm and 4.5 mm thick. Here is the firing schedule I used, but remember that each kiln fires differently, so you may need to make adjustments for your own kiln.

#### Full Fuse Firing Schedule

Segment 1: Ramp 300°F/hr to 1100°F and hold 45 min.  
 Segment 2: Ramp 600°F/hr to 1400°F and hold 10 min.  
 Segment 3: Ramp 9999 (AFAP\*) to 950°F and hold 60 min.  
 Segment 4: Ramp 100°F/hr to 700°F and no hold.  
 Segment 5: Off.

\* as fast as possible

If you are using 90 COE glass, please adjust the schedule. For Segment 2, you might need a top temperature of 1425°F. If you are afraid to fuse your piece because you don't know the top temperature for your specific kiln, please fuse a small sample first.

17

*Rough up the shiny side of the piece.*



This helps the paint to adhere to the glass and achieve a nice coverage. For this we used silicon carbide size 220, but a lap grinder can be used too. Before applying the color, clean the glass with alcohol.

18

*Using a small or medium flat brush, carefully apply the Glass-Glo paints onto the surfaces where you roughed up the glass.*



Glass-Glo fires true to color and has a metallic finish that can be fired in the range from 1300°F to 1400°F. It's for surface applications, so you will want to apply the Glass-Glo when you are ready to perform your last fire.

Glass-Glo is compacted into a small container and needs to be mixed with water. Dip your brush in the water, then start swirling it around in the Glass-Glo container. Remember that the more water you have mixed in with the Glass-Glo, the less color pigment you will have. You don't want to make it too thick, but you don't want

to make it too runny either. Let the Glass-Glo and water mixture sit for about 15 minutes, then come back later after it's had some time to settle in.

When you're finished using the Glass-Glo, simply close the container. You don't need to drain it. The product will dry up on its own, and you can reuse it for other projects. Once you have fired and cleaned your project, be aware that you will lose the Glass-Glo that is not directly in contact with the glass in the same way as when you are working with mica.

On the outer edge we mixed Bright Gold and Berry to get a nice Orange color. Take some Berry with the brush and mix it in the Gold jar. For the center area we used Bright Gold and for the middle areas we used Blue and Purple. After the Glass-Glo is dry, the piece will need to be fired again. We used ZYP Boron Nitride Spray for the kiln shelf, but kiln wash works too.

#### Firing Schedule

Segment 1: Ramp 250°F/hr to 350°F and hold 10 min.  
 Segment 2: Ramp 350°F/hr to 500°F and hold 10 min.  
 Segment 3: Ramp 350°F/hr to 1000°F and hold for 20 min.  
 Segment 4: Ramp 600°F/hr to 1325°F and hold for 10 min.  
 Segment 5: Ramp 9999 (AFAP\*) to 950°F and hold 60 min.  
 Segment 6: Ramp 100°F/hr to 700°F and no hold.  
 Segment 7: Off

\*as fast as possible

For 90 COE glass please adjust the schedule. For Segment 4, you might need a top temperature of 1350°F. If you are afraid to fuse your piece because you don't know the top temperature for your specific kiln, please fuse a small sample piece first.

19

*Clean and slump the piece.*



This is the final step. After firing the Glass-Glo, clean off any residue of kiln wash and color. Prepare the draping or slumping mold as usual with ZYP, kiln wash, or fine fiber paper. We used for draping a stainless steel mold coated with ZYP. If your kiln has top elements, please think that the glass has to be placed about 2" deeper than the elements. For draping we place the glass piece with the painted site face down to the mold. If you use a slumping mold, the painted site has to be face up to you.

#### Slumping Schedule

Segment 1: Ramp 250°F/hr to 975°F and no hold.  
 Segment 2: Ramp 9999 (AFAP\*) to 950°F and hold 60 min.  
 Segment 3: Ramp 100°F/hr to 700°F and no hold.  
 Segment 4: Off.

\*as fast as possible

Starting at 950°F, please watch the slumping process and adjust the top temperature if necessary.

For 90 COE glass, please adjust the schedule. Maybe you would need at Segment 2 a top temperature of 1000°F.

**GPQ**

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*Cristina Schnellboegl discovered glass in the winter of 2016, beginning with stained glass. After a few months' experience in cutting and soldering, Cristina was so attracted to glass and the endless possibilities of manipulating it, she made the decision to buy a torch and work with soft glass as well. When making glass beads, she needed a kiln for the annealing process, which in turn introduced her to fused glass.*

*Cristina was born in Romania, where she graduated from the engineering/economics university. After she married her husband in 2000, she moved to Germany and established a travel company. In 2015 she emigrated with her family to Nova Scotia, Canada. This big change in her life and the endless inspiration that comes from living near the shore surrounded by woods gave her the desire to work with glass while mixing and using different techniques and mediums. Her home and studio are located in Prospect, Nova Scotia, Canada, where she resides with her husband and two dogs.*



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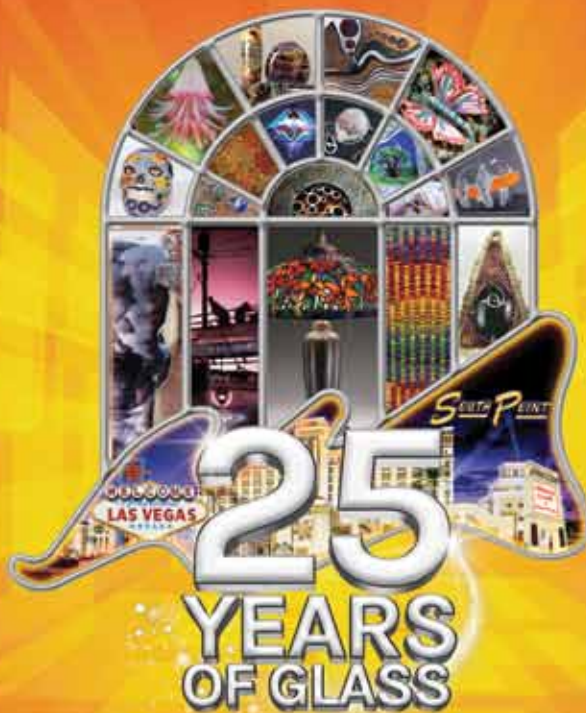
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# Winter Blanket

*Design, Fabrication, and Text by Lori Hudson*



Working in the fused glass arena, it is my passion to create dimension in my art. The following tutorial uses stringers to create a light blanket of snow over hilly ground. Using bits of fiber blanket and pieces of fiberboard, the glass can be slumped into wherever your imagination leads you.

## **90 COE**

Clear Stringers, 1 Tube  
Opaque White Stringer, 1 Tube  
Light Sky Blue Stringer, 1 Tube  
Medium Amber Stringer, 1/4 Tube  
Rose Brown Stringer, 1/4 Tube  
Dichroic/Clear Transparent/Rainbow Stringer,  
3 Strands (optional)

## **Tools and Materials**

Fiber Blanket Tile Nippers  
Blue Gel Glue E6000 Permanent Adhesive  
Shelf Paper Fiberboard  
Optional Frame



1

Place a piece of shelf paper on top of the kiln shelf and draw a 9" x 9" square on the paper.



2

Break the stringers in half using the tile nippers.



The stringers typically come in 18" lengths. Arrange the colors so that they are accessible.

3

Lay out the stringers in the desired color pattern and hold them in place with glue.



Fill in the square with the clear stringers and run a bead of the blue gel glue down one side of the stringers. Turn the kiln shelf one quarter of a turn and put the next layer of stringers down. I put the ground colors down for this layer.

Continue for a total of 4 layers. For layer 3 I used clear and white, and for layer 4 I used white and light blue, then glammed it up with a little sparkle using the dichroic stringers.

4

Fire the stringer plate using the suggested tack fuse schedule at the end of the tutorial.



Remember that all kilns fire differently, so you may need to make some schedule adjustments for your own kiln.

5

Use fiberboard and scraps of fiber blanket to create a hill-like design for the plate slump.



6

Slump the stringer design using the suggested slumping schedule at the end of the tutorial.



Since the stringers are not a solid mass, the schedule is lower than usual.

7

Adhere the glass piece to the frame using E6000 permanent adhesive.



This finished art piece will look great hanging on a wall. Winter is the season of rest for Mother Nature. Take time to look at the beauty of all the seasons. Even the winter season, which we often think of as barren, has a beauty all its own.

**GPQ**

### Firing Schedules

Adjust these schedules as needed to fit your own kiln.

#### Tack Fuse Schedule

Segment 1: Ramp 400°F/hr to 1000°F and hold 5 min.  
Segment 2: Ramp 400°F/hr to 1375°F and hold 10 min.  
Segment 3: Ramp 9999 (AFAP\*) to 960°F and hold 90 min.  
Segment 4: Cool to room temperature.

\*as fast as possible

#### Slump Fuse Schedule

Segment 1: Ramp 300 °F/hr to 700°F and hold 10 min.  
Segment 2: Ramp 400°F/hr to 1200°F and hold 5 min.  
Segment 3: Ramp 9999 (AFAP\*) to 960°F and hold 90 min.  
Segment 4: Cool to room temperature.

\*as fast as possible.

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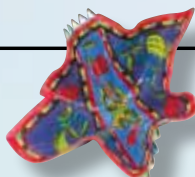


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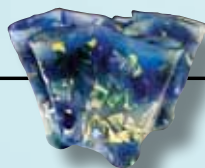


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*Lori Hudson started working in stained glass in the early 1990s. In 2002, she found glass fusing, and this has been her passion ever since. Lori has had the honor of studying with some of the finest glass artists around the country. She strives daily to learn something new and is always working on her skills. More of Lori's work can be seen by visiting [www.Facebook.com/Lori.Hudson](http://www.Facebook.com/Lori.Hudson).*



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photo by Steven P. Widoff

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# Pacific Coast Cove

*Design by Aanraku Glass Studios, Text by Darlene Welch*



California's Pacific Coast Highway along the state's western border is well known to be one of the most scenic drives in the world, including its outstanding vistas of rugged mountain coves. First rendered by Erin Crosby, this 30" x 22" stained glass design can be found in Aanraku Glass Studio's pattern book, *Eclectic XIV*. This collection from Hiroyuki Kobayashi and Jeffrey Castaline contains 26 patterns covering subjects from San Francisco scenes, a heron, and assorted marine life to a vintage car and more. To learn more about Aanraku's extensive pattern collections, visit [www.abasg.com](http://www.abasg.com). **GPO**

## **Wissmach Glass Co.**

- WO-17 White Opal/Red/Orange Wisspy for Sun and Reflection, 1-1/2 Sq. Ft.
- 27-D Orange/Dense Opal/Crystal for Sky, 2 Sq. Ft.
- 272-D Dense Opal/Light Blue/Mauve for Sky and Water, 4 Sq. Ft.
- 272-L Light Opal/Light Blue/Mauve for Water, 2 Sq. Ft.
- 78-L Medium Amber/Green/Light Opal/Crystal for Landscape, 1 Sq. Ft.
- WO-55 Amber/Green/Opal/Crystal Wisspy for Landscape, 2 Sq. Ft.
- WO-57 Medium Green/Opal/Crystal Wisspy for Landscape, 3-1/2 Sq. Ft.
- 191-D Medium Green/Dense Opal/Crystal for Landscape, 2 Sq. Ft.
- 100-SP Dark Green/Opal for Landscape, 1 Sq. Ft.

## **Tools and Materials**

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

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# Happy Holiday Snow People

*Design by Marianne Crivellaro, Text by Darlene Welch*

Marianne Crivellaro, a prolific designer of stained glass patterns, makes your holidays a little bit brighter with this jolly couple made from snow. The pattern is from her book, *'Tis the Season*, one of the twelve pattern books included in her giant collection, *The Ultimate Pattern Book, Volume 1*. The collection, which includes the books *Lead the Way*, *Peace on Earth*, *All Stars 1*, *The Bear Essentials*, and *Heaven Sent*, plus five others, is filled with 300-plus patterns that are perfect for beginning and intermediate stained glass artists and hobbyists. The patterns can also be used as a great beginning for mosaic and fused glass designs.

Pay attention to the color selection and be sure to match the grain of the glass to the direction of each particular pattern piece as you are planning your project. The eyes, buttons, and those big smiles can be added using black glass paint if you wish.

**GPQ**



## **Wissmach Glass Co.**

51DDXXMSP Opal/Crystal for Snow Couple Bodies, 2 Sq. Ft.

WO-17 White Opal/Red/Orange for Carrot Noses, Scrap

65-D Medium Brown/Blue/Opal for Snowman Jacket, 1 Sq. Ft.

WO-703-LL Blue/Purple for Snowman Scarf and Gloves, Scrap

277-L Medium Blue/Dark Blue for Snowman Hat, 1/2 Sq. Ft.

77-L Light Brown/Yellow Green/Opal for Snow Woman Jacket, 1 Sq. Ft.

DR169, Medium Aqua Blue for Snow Woman Scarf and Gloves, Scrap

69-L Blue Green/Opal/Crystal for Snow Woman Hat, Scrap

58-D Medium Amber/Opal/Crystal for Snow Woman Hat, Scrap

WO-702-LL Medium Green/Dark Blue/Opal for Holly Leaves, Scrap

16 Copper Red for Holly Berry, Scrap

## **Tools and Materials**

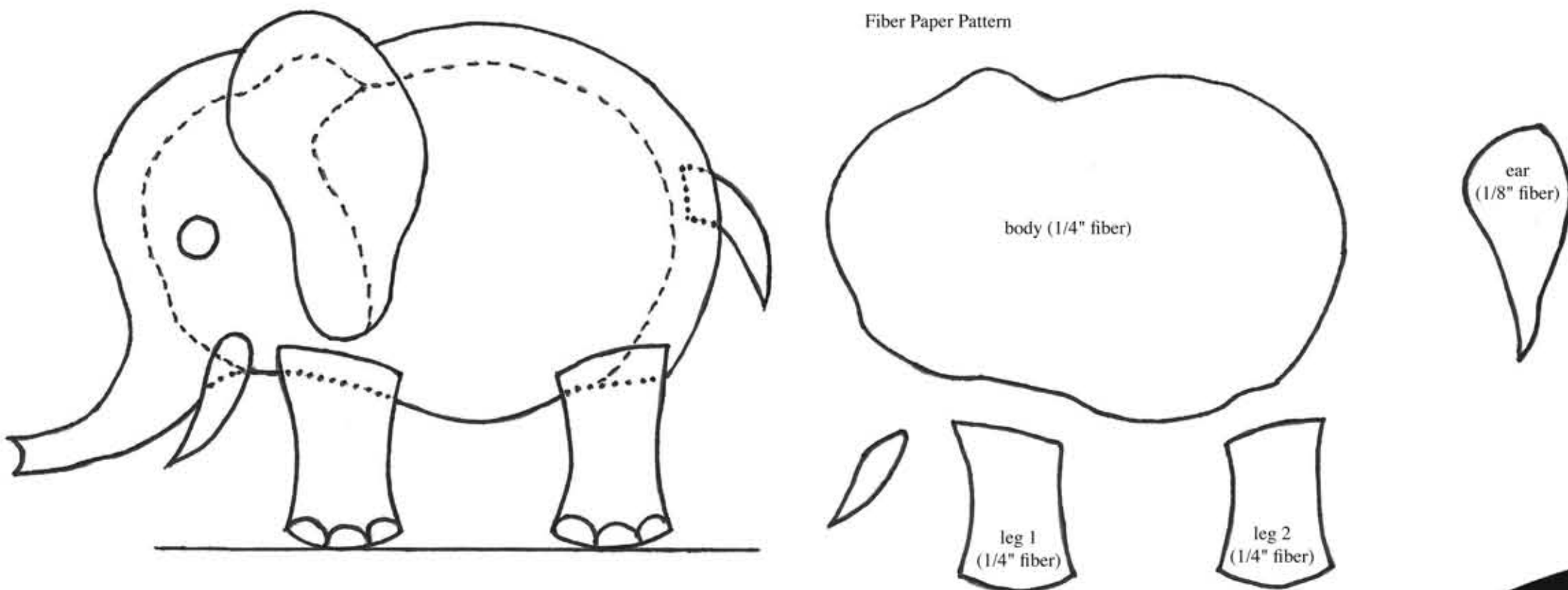
7/32" Copper Foil Flux Solder

Black Patina 14-Gauge Copper Wire

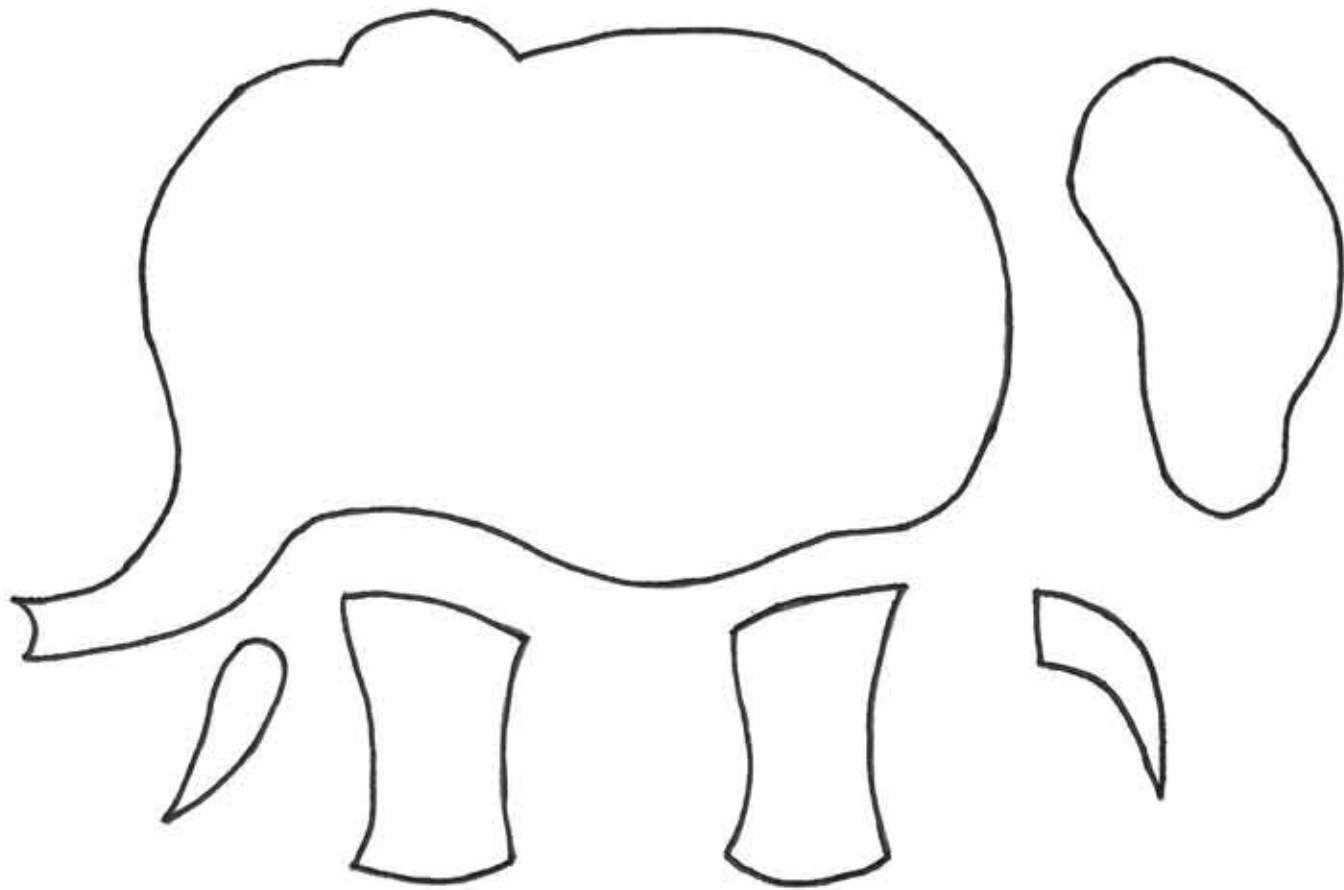
Black Glass Paint Lead U-Channel

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Glass Pattern



# Stand-Up Elephant

Design by Wesley R. Wong

96 COE Glass  
Pewter Opal, 6" x 8"  
Mauve Opal, 3" x 6"  
Thin White Opal, Scrap  
White Opal, Scrap  
Black Dichroic, Scrap

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## Wissmach Glass Co.

51DDXXMSP Opal/Crystal for Snow Couple Bodies, 2 Sq. Ft.  
WO-17 White Opal/Red/Orange for Carrot Noses, Scrap  
65-D Medium Brown/Blue/Opal for Snowman Jacket, 1 Sq. Ft.  
WO-703-L.L. Blue/Purple for Snowman Scarf and Gloves, Scrap  
277-L Medium Blue/Dark Blue for Snowman Hat, 1/2 Sq. Ft.  
77-L Light Brown/Yellow Green/Opal for Snow Woman Jacket, 1 Sq. Ft.  
DR169, Medium Aqua Blue for Snow Woman Scarf and Gloves, Scrap  
69-L Blue Green/Opal/Crystal for Snow Woman Hat, Scrap  
58-D Medium Amber/Opal/Crystal for Snow Woman Hat, Scrap  
WO-702-L.L. Medium Green/Dark Blue/Opal for Holly Leaves, Scrap  
16 Copper Red for Holly Berry, Scrap

## Lion

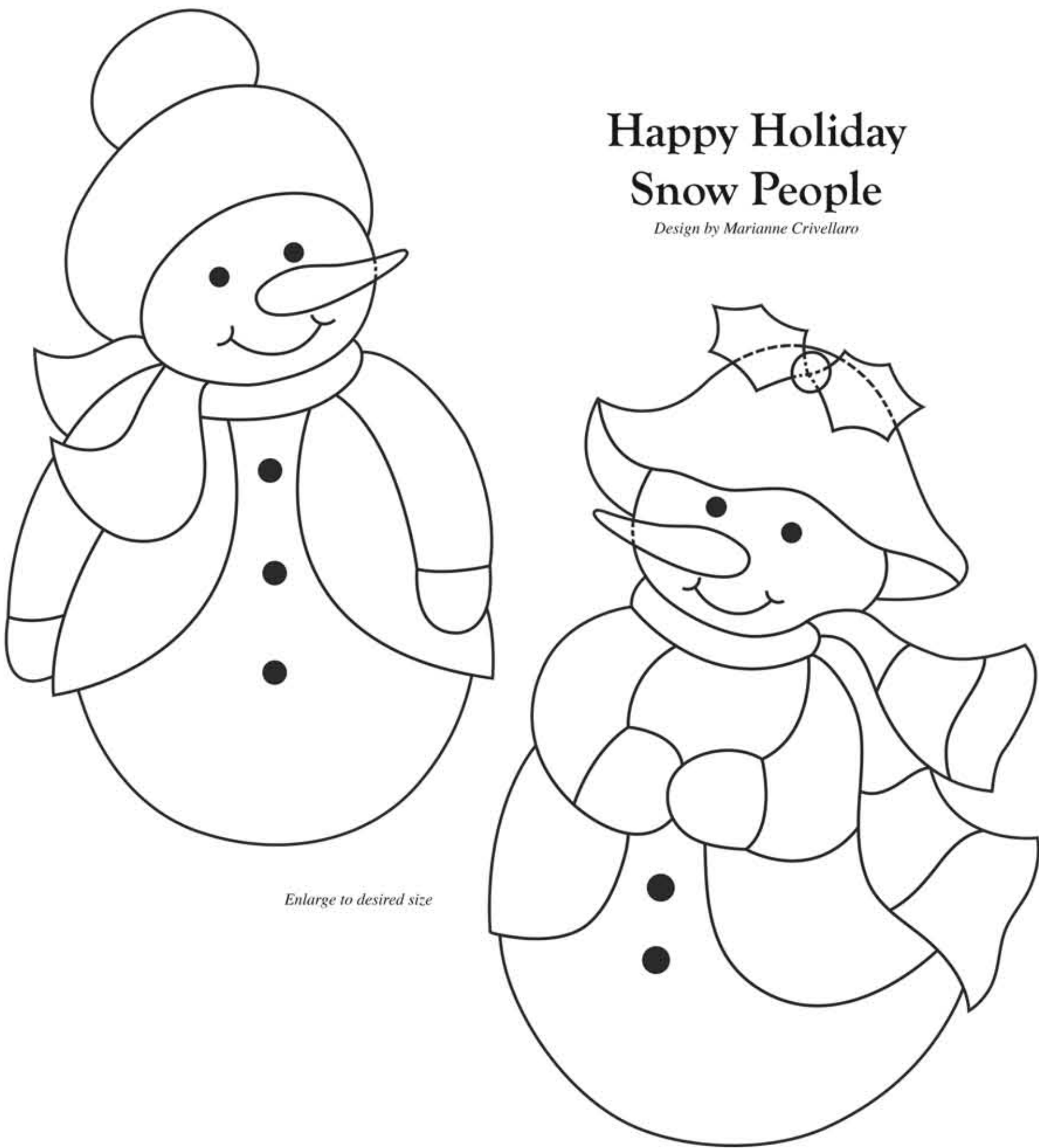
Design by Jean Beaulieu

Wissmach Glass Company  
34 Light Amber for Muzzle, Chin, Eye, and Ear, 1 Sq. Ft.  
58-L Medium Amber/Light Opal/Crystal for Face, Scrap  
77-L Light Brown/Yellow Green/Opal for Mane, Scrap  
145-SP Dark Amber/Opal/Crystal for Mane, Scrap  
27 D - for Sky, 1 Sq. Ft.  
Black - for Eye, Nose, and Mouth

## Glass Patterns Quarterly Pullout Pattern Sheet Winter 2018

## Happy Holiday Snow People

Design by Marianne Crivellaro

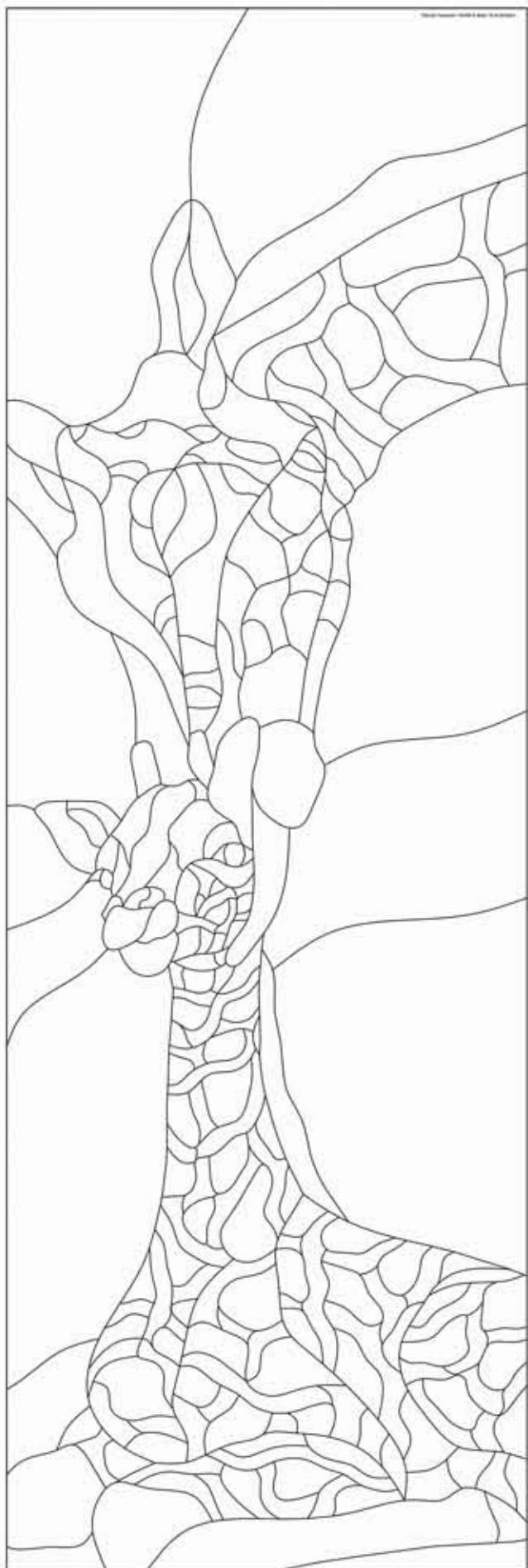


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## Mama's Love

Design by Glenda Ferguson

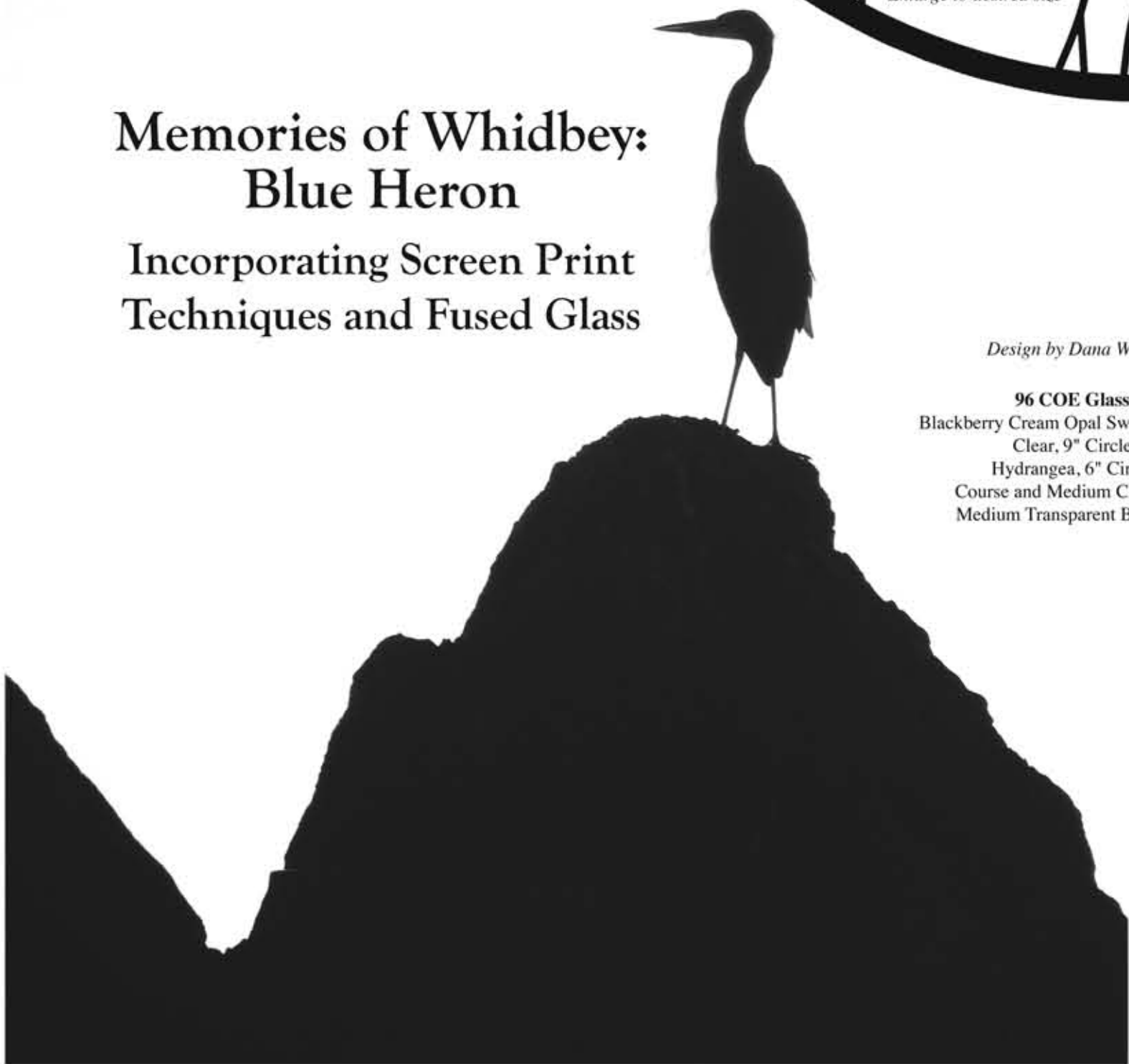
Glass  
Brown, 2 Sq. Ft.  
Brown Textured Glass, 1 Sq. Ft.  
Waffle Brown, 1 Sq. Ft.  
Cream, 2 Sq. Ft.,  
Gray, 1/2 Sq. Ft.  
Pink, 4 Sq. Ft.  
Purple, 1/2 Sq. Ft.  
Black, Scrap



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## Memories of Whidbey: Blue Heron

Incorporating Screen Print  
Techniques and Fused Glass



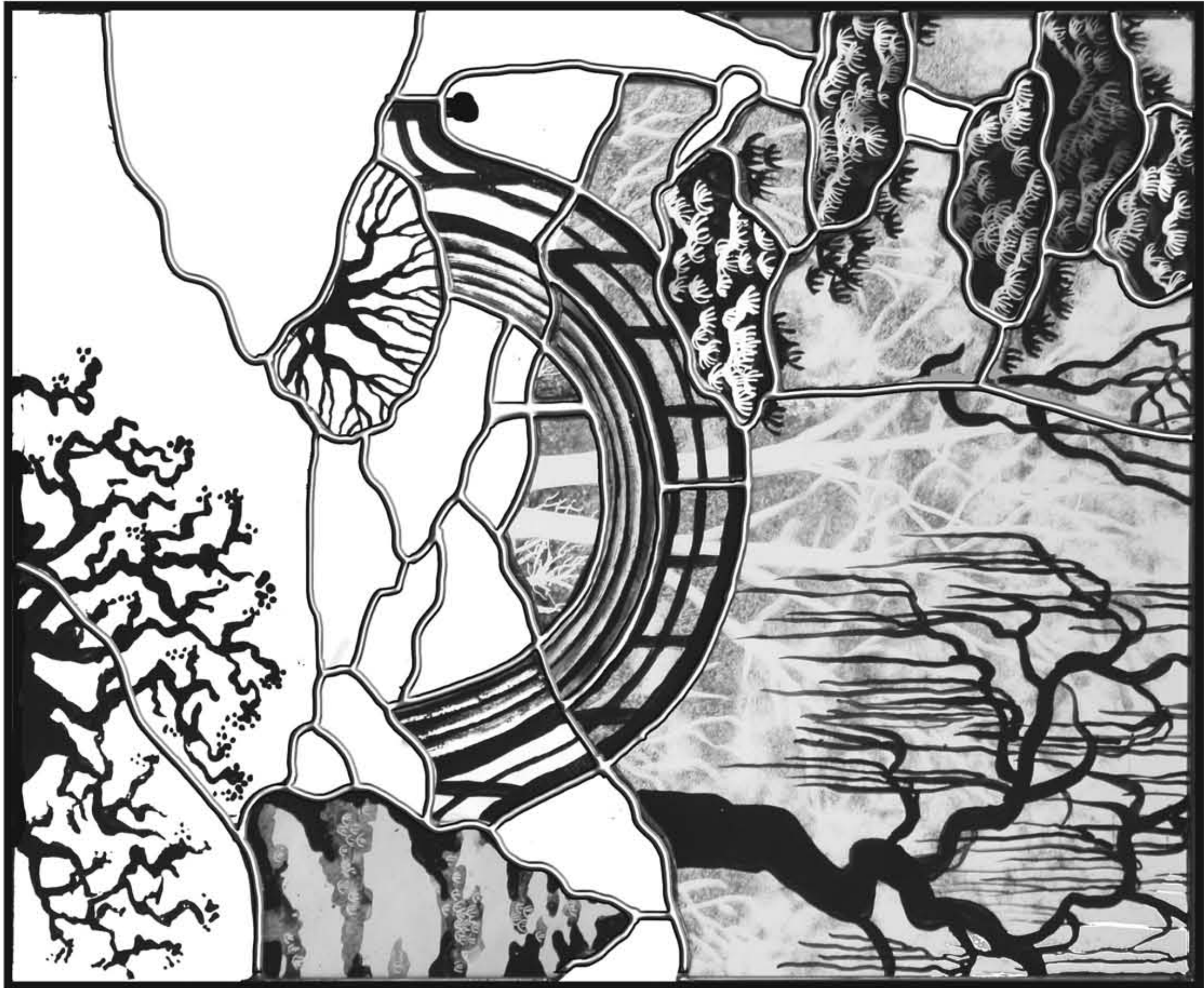
Design by Dana Worley

96 COE Glass  
Blackberry Cream Opal Swirl, 9" Circle  
Clear, 9" Circle  
Hydrangea, 6" Circle  
Course and Medium Clear Frit  
Medium Transparent Blue Frit

## Tea Bridge Winter Fantasy

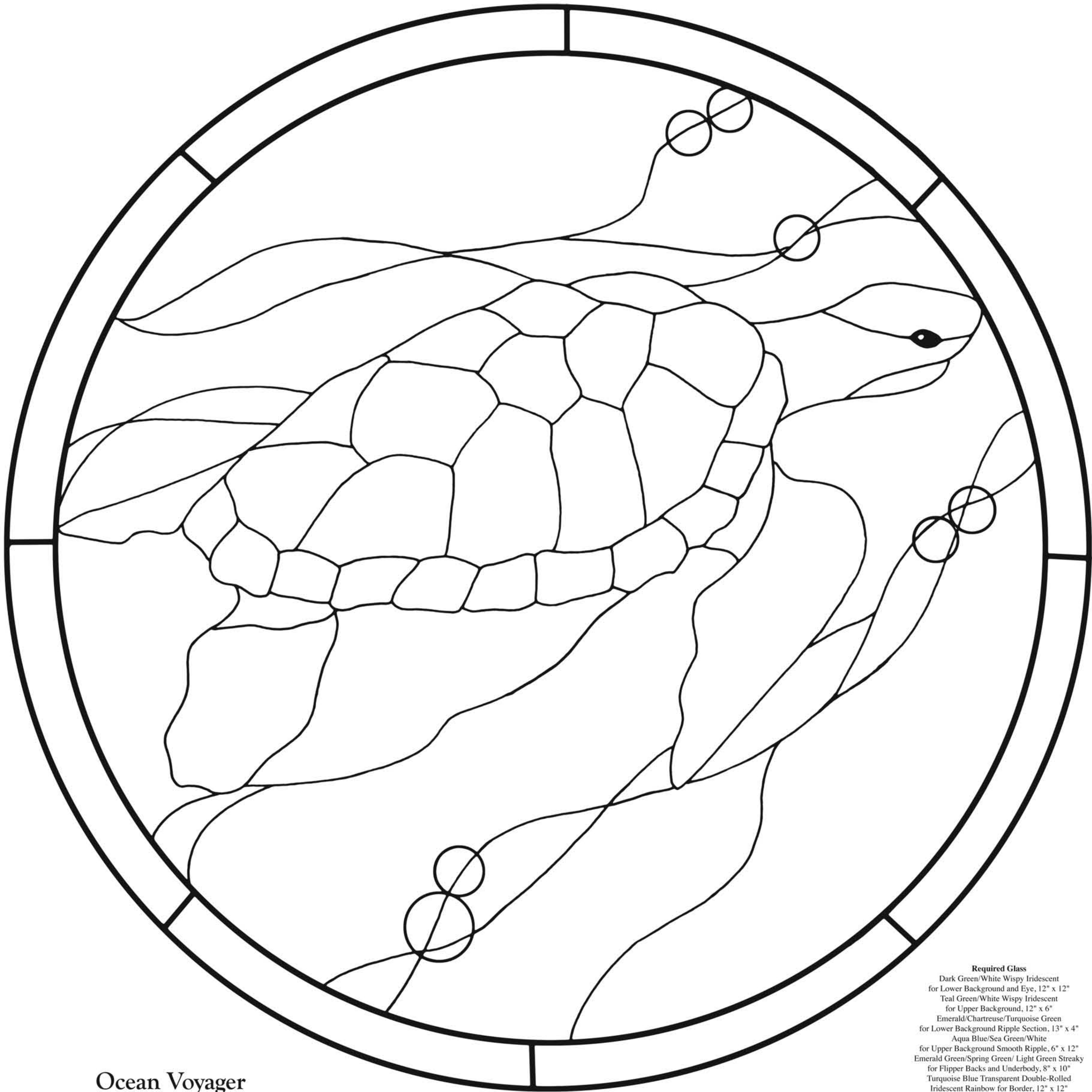
Design by Chantal Fure

Yonghegong Opalescent Glass  
1000-1A Sky Blue Antique, 1 Sq. Ft.  
700-1A Gray Antique, Scrap  
1660 SP Blue Stipple, 1 Sq. Ft.  
16330 Purple Stipple, 1 Sq. Ft.  
4644 Blue/Green Stipple, Scrap  
Additional Glass  
3 mm Float Glass for Sky Pieces, 1 Sq. Ft.  
3 mm Float Glass for Mixing Palette, Scrap  
Resin Glass Paints  
1059 Steel Black, 2 Teaspoons  
1220A Gray/Green, 1 Teaspoon



Enlarge to desired size

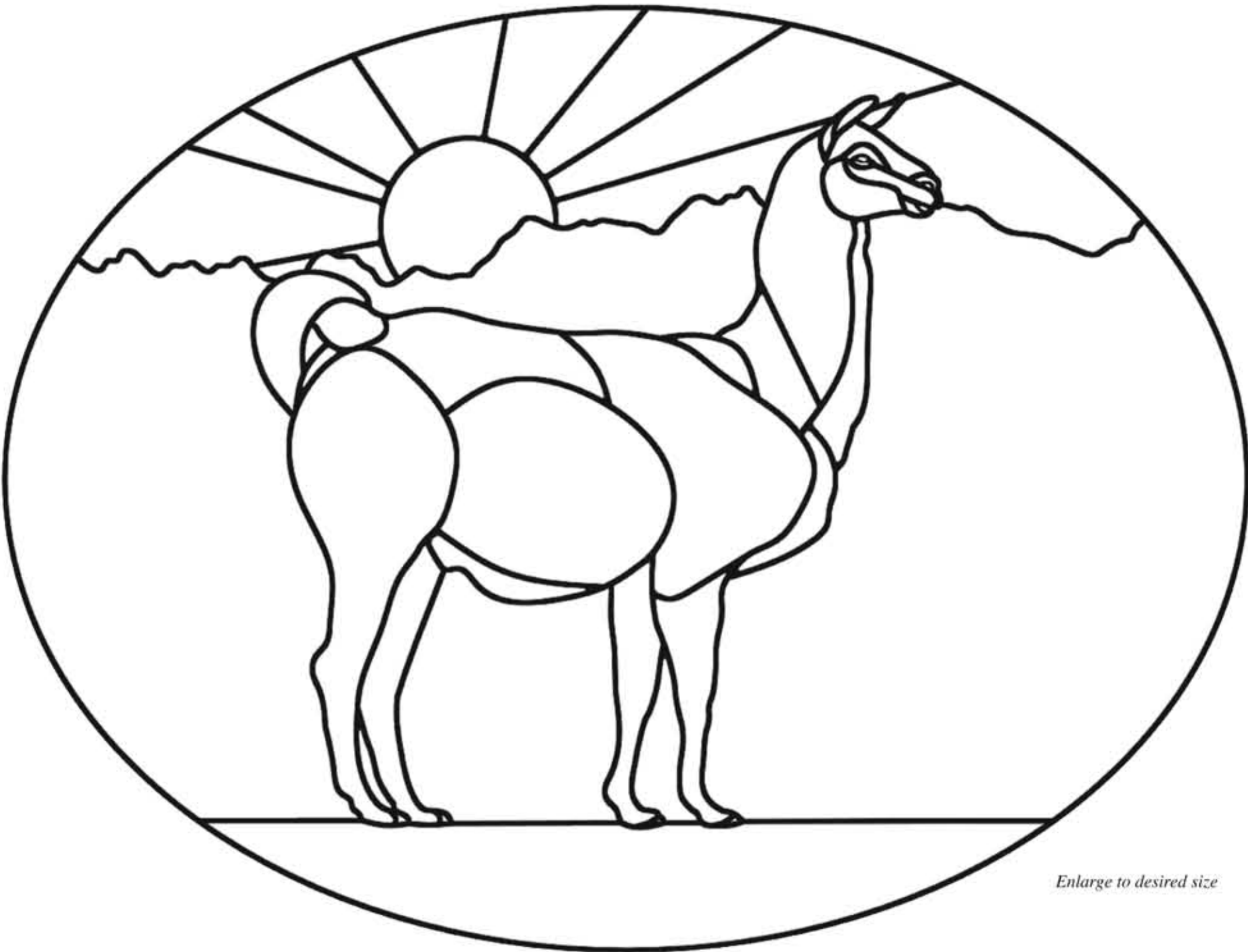




# Ocean Voyager

Design by Leslie Gibbs

**Required Glass**  
Dark Green/White Wispy Iridescent  
for Lower Background and Eye, 12" x 12"  
Teal Green/White Wispy Iridescent  
for Upper Background, 12" x 6"  
Emerald/Chartreuse/Turquoise Green  
for Lower Background Ripple Section, 13" x 4"  
Aqua Blue/Sea Green/White  
for Upper Background Smooth Ripple, 6" x 12"  
Emerald Green/Spring Green/ Light Green Streaky  
for Flipper Backs and Underbody, 8" x 10"  
Turquoise Blue Transparent Double-Rolled  
Iridescent Rainbow for Border, 12" x 12"  
Green/Magenta Ripple on Clear Dichroic  
for Dichroic Water Ribbons, 5" x 6"  
Teal/Pink Ripple on Clear Dichroic  
for Lower Background Water Ribbons, 4" x 5"  
**Additional Glass**  
Assorted Beveled Gems and Nuggets (7)  
Glassmith Studio Green Turtle Bevel Cluster, 1" x 9"  
Dichroic Ripple

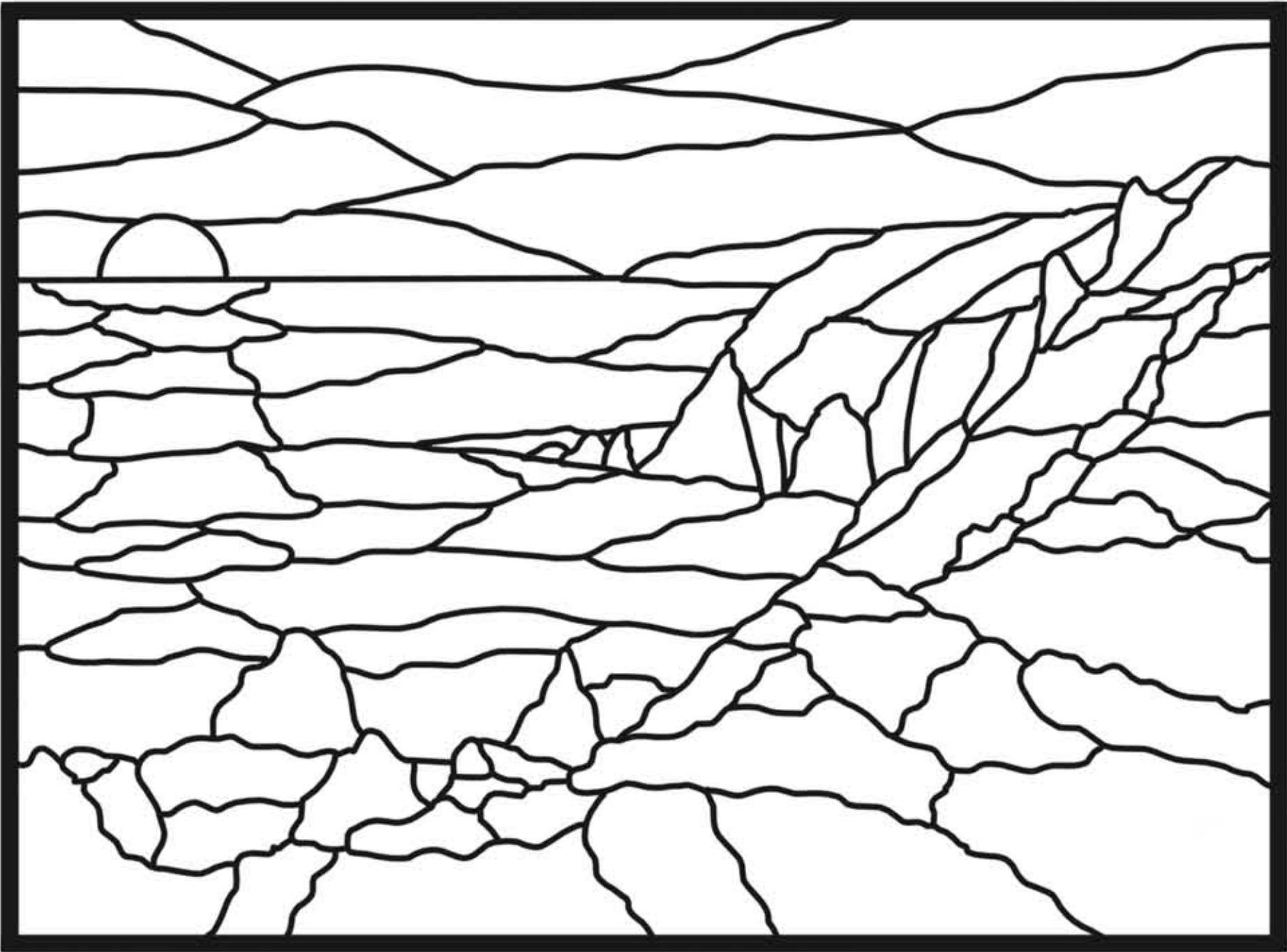


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# Llamas on Trend

Design by Jean Beaulieu

**Wissmach Glass Company**  
315-D Medium Amber/Dense Opal for Llama, 1 Sq. Ft.  
191-D Medium Green/Dense Opal for Background, 1 Sq. Ft.  
WO-57 Medium Green/Opal/Crystal Wispy for Foreground, Scrap  
EM34 Light Amber English Muffle for Sun, Scrap  
58-D Medium Amber/Opal/Crystal for Sky, Scrap  
325-L Light Amber Light Opal/Crystal for Sky, Scrap



Enlarge to desired size

# Pacific Coast Cove

Design by Annraku Glass Studios

**Wissmach Glass Co.**  
WO-17 White Opal/Red/Orange Wispy for Sun and Reflection, 1-1/2 Sq. Ft.  
27-D Orange/Dense Opal/Crystal for Sky, 2 Sq. Ft.  
272-D Dense Opal/Light Blue/Mauve for Sky and Water, 4 Sq. Ft.  
272-L Light Opal/Light Blue/Mauve for Water, 2 Sq. Ft.  
78-L Medium Amber/Green/Light Opal/Crystal for Landscape, 1 Sq. Ft.  
WO-55 Amber/Green/Opal/Crystal Wispy for Landscape, 2 Sq. Ft.  
WO-57 Medium Green/Opal/Crystal Wispy for Landscape, 3-1/2 Sq. Ft.  
191-D Medium Green/Dense Opal/Crystal for Landscape, 2 Sq. Ft.  
100-SP Dark Green/Opal for Landscape, 1 Sq. Ft.



# Lion

*Design by Jean Beaulieu, Text by Darlene Welch*



The power of the lion, revealed in his massive head and flowing mane, has been represented since early times in sculptures and paintings. Canadian artist Jean Beaulieu celebrates this noble beast in stained glass. This 12" x 12" design is one of 14 included in his *Suncatcher* pattern collection that also includes flowers, birds, insects, additional animals, and more. Visit [www.jeanbeaulieu.com](http://www.jeanbeaulieu.com) to find more artwork and additional pattern collections from this remarkable artist.

**GPQ**

#### **Wissmach Glass Company**

34 Light Amber for Muzzle, Chin, Eye, and Ear, 1 Sq. Ft.  
58-L Medium Amber/Light Opal/Crystal for Face, Scrap  
77-L Light Brown/Yellow Green/Opal for Mane, Scrap  
145-SP Dark Amber/Opal/Crystal for Mane, Scrap  
27-D Orange/Opal/Crystal for Sky, 1 Sq. Ft.

Black - for Eye, Nose, and Mouth

#### **Tools and Materials**

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

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# Inspiring Fused Tray

*Design, Fabrication, and Text by Erica Biery Collins*



Most people say that working with glass is very therapeutic when they come to my studio for a fusing class. The way the light transmits through the glass, reflecting an array of rainbow prisms, can make anyone smile. Using several layers in a mix of opaque and transparent glasses will give any glass piece depth and character.

Having an inspirational quote or saying in the glass can be even better! I chose this saying because it is one that we can all live by to remind us to always live, laugh, and love to the fullest. I found the perfect three-section mold to fit this quote and thought the wispy white and blue/green glass would have a calming effect in any room of the house.

## 96 COE Glass Sheet Glass

Apple Jade Opal for Tray Base, 15-1/2" x 5-1/4"

Clear 2 mm Glass, 3" to 4" Squares

Wispy White, 3" to 4" Squares

## Compatible Scrap Glass for Frit

Opal Blue

Opal Turquoise

Sky Blue Transparent

Light Green Transparent

Aventurine Green

Iridescent Clear

Medium Blue Opal

Apple Jade Opal

## Tools and Materials

Glassline Black Paint with Applicator Tip

Three-Section Jumper Mold

Pump Hairspray Glass Cleaner

Permanent Marker Frit Sifter

Small Paper Cup Paintbrush Fusing Glue

Dental Pick or X-Acto® Knife

ThinFire Shelf Paper

1

*Cut the Apple Jade or similar colored opal glass to fit the size and shape of the mold.*



The mold used here is 15-1/2" x 5-1/4" with 3 separate compartments to accommodate the sayings in the glass. I chose an opal base in a blue-green shade to resemble a serene and relaxing setting.

2

*Cut three Wispy White 4" squares and center them on top of the jade piece.*





The Wispy White glass will allow for a little transparency and a cloud-like effect. Make sure that all of the squares are cut and placed with the grain of the glass going in the same direction to let the words flow together. I really enjoy working with the grain of various styles and colors of glass to create different effects in the glass.

While I was still in cutting mode, I cut the three 4" squares on which the sayings will be painted from the 2 mm clear glass. The clear squares will be placed on top of the white squares after the sayings have been painted on. Clean both sides of the clear squares, make sure they are fully dry, and set aside for later.

Using a ruler, find the center of the jade piece and the center of the middle 4" white square and line them up. You can eyeball the left and right squares or use a ruler to make sure that the jade borders showing around the edges of each white square are straight and evenly spaced.

Glue the white wispy pieces to the jade base with the pump hairspray. This is an important step to make sure that the white pieces remain centered, or very close, when you add the frit as well as when the piece is slumped.

3

*Mark the center of each of the three sayings on the pattern.*



Use a ruler to measure the length of the designs and make a small mark in the middle, both horizontally and vertically. Where the marks cross will indicate the center of each section of the pattern.

4

*Use the same technique for marking the center of each clear glass square.*



5

*Trace the text onto the clear glass squares with the black Glassline paint.*



Flip each clear glass square over, marker side down, and lay it on top of the text pattern provided. If you prefer to create your own pattern, play with different fonts on your computer, create your own saying, and print.

Trace the words onto the clear glass squares with the black Glassline paint using the applicator tip. I used the medium tip with the paint to achieve finer detail in the font. Put the painted squares to the side and allow the paint to dry completely.

6

*Make any corrections needed for the painted words.*



If you notice any smudges or errors in the paint, this can be scraped off using a dental pick or an X-Acto knife after the paint is fully dry.

7

*While the paint is drying on the clear squares, pick out some colors of scrap glass to complement the jade base.*



I chose a blend of opaque and transparent blues and greens, then added a little Aventurine green and Iridescent Clear for some depth and sparkle.

8

*Crush the scrap glass into frit.*



This is a great way to use up the scrap glass that you may have accumulated in your studio. I collected about half a pound of scrap for this project and crushed it up using my frit maker. A newspaper and a hammer would also work well.

9

*Sift out the smallest powder and fine frit sizes.*



I chose to sift out the smaller glass frit for this project, because the colors tend to get "muddy" in those sizes. I wanted to have clear chunks and pieces of varying colors and sizes in the finished project.

10

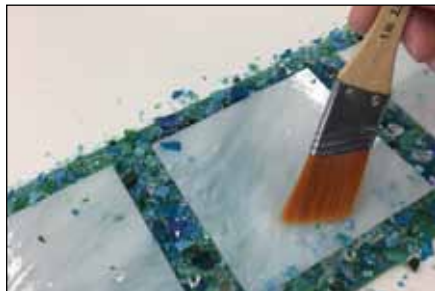
*Apply the frit using a small paper cup.*



This is my preferred frit applicator. I squeeze the edge of the cup, creating a funnel to prevent the frit from going everywhere.

11

*Use an angled paintbrush to clean up any excess frit.*



Clean up the extra frit from all the edges and, even more importantly, from the tops of the white squares.

12

*Glue the project.*



Once the paint is dry, lay the clear squares over the white squares and glue them together with fusing glue. Also add glue to the areas where the frit is located.

13

*Carefully load the piece into the kiln on a prepared shelf, fire to a full fuse, then slump the piece on the mold.*



I like to use ThinFire shelf paper for a smooth finish, but you can also use kiln wash. Remove the piece when cool, file any sharp edges that the frit may have caused, then wash and dry the piece. To finish, lay the fused piece over the three-section mold, then slump. Suggested full fuse firing and slumping schedules are included at the end of the tutorial.

This piece will go well in most settings such as on a dresser or vanity, or even as a serving dish. I have used this technique to create other inspirational tiles, coasters, and pendants as well. As always, feel free to use your creative license to try different color blends, fonts, and sayings. These pieces make great gifts for anyone who is in need of a cheerful glass piece.

GPQ

### Firing Schedules

Remember that all kilns fire differently. You may need to adjust these schedules to work with your own particular kiln.

### Full fuse Firing Schedule

Segment 1: 400°F/hr to 1000°F and hold 10 min.

Segment 2: 9999 (AFAP\*) to 1450°F and hold 15 min.

Segment 3: 9999 (AFAP\*) to 1000°F and hold 10 min.

Segment 4: 800°F/hr to 950°F and hold 45 min.

Segment 5: 500°F/hr to 700°F and no hold.

Segment 6: 200°F/hr to 120°F and off.

Cool to room temperature.

\*as fast as possible

### Slumping Schedule

Segment 1: 300°F/hr to 1000°F and hold 10 min.

Segment 2: 9999 (AFAP\*) to 1225°F and hold 15 min.

Segment 3: 9999 (AFAP\*) to 1000°F and hold 10 min.

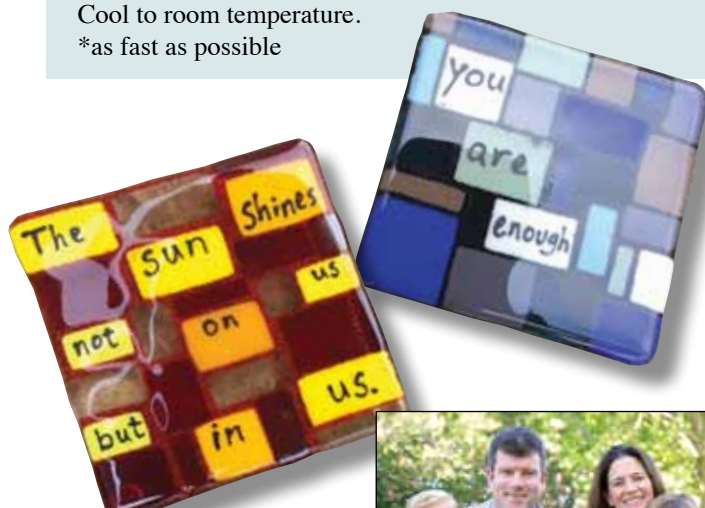
Segment 4: 800°F/hr to 950°F and hold 45 min.

Segment 5: 500°F/hr to 700°F and no hold.

Segment 6: 200°F/hr to 120°F and off.

Cool to room temperature.

\*as fast as possible



Erica Biery Collins is a glass artist from Northampton, Pennsylvania, who was introduced

to the glass industry many years ago while working at a stained glass warehouse. During her tenure there, she traveled the country learning various glass techniques from world-renowned artists. She now uses her knowledge and skills to create stunning glass pieces using fused glass, stained glass, and mosaics.

Erica currently teaches weekly fusing classes at her studio and has taught classes in North Carolina, Canada, and at the Glass Craft & Bead Expo in Las Vegas. She also offers her glasswork at gift shops and galleries throughout the East Coast. She emphasizes finding ways to integrate the various mediums for architectural purposes such as lighting, wall mosaics using fused pieces, stand-alone stained glass, or mosaic designs with fused glass accents.



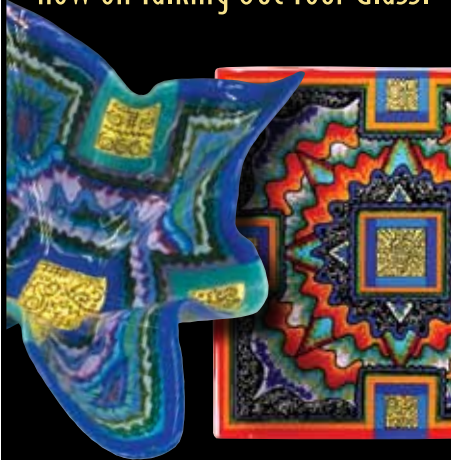
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# Oscar and Kayleigh

## High-Fire Vitreous Enamel Fused Glass Pendant

*Design, Fabrication, and Text by Pat Wilde*

Everyone deserves to be warm in the winter. Snuggled into Kayleigh's neck, Oscar is glad for the warm ride home. Before you start to create this lovely pendant, be aware that when you are working with glass paints, you should use a Niosh-approved respirator and eye protection. When painting, also remember to always use a cotton swab or small brush to wipe the dust off of the piece. *Never blow away the dust!*

### **Bullseye Glass Co.**

101-0050 Stiff Black Opal Thin 90 COE

13-0030 Opaque White Double Rolled 90 COE

Clear Scrap Glass for Palette, 3" x 3"

Clear Scrap Glass for Pendant Blank Work Surface, 3" x 3"

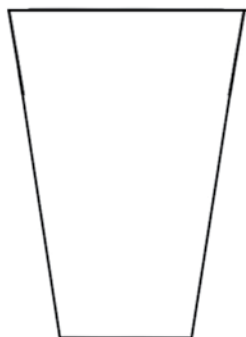
### **Glassline Paints**

Paints in Dark Blue, Turquoise,  
Carbon Blue, White, Black, and Gray

80299 Fine-Tipped Pen Nibs

### **Kaiser Glass Enamels**

Red and Sky Blue



Template A



Template B



Glassline Paint reference



Kaiser Paint reference



Snowflake Paint reference



### Tools and Materials

Safety Glasses Niosh-Approved Respirator  
Glass Cutter Kiln Distilled Water  
Silver Permanent Marker Fine-Point Pen or Pencil  
Red Saral Transfer Paper Paper Towels  
5/0, 3/0, or 0/0 Paint Brushes Clear Tape  
Denatured Alcohol Toothpicks  
Cotton Pads Cotton Swabs Wet Sponge  
Dremel Tool with Diamond Bit or Wet Coarse Sandpaper  
Binder Clips Small Plastic Cups  
Glue-On Bail 5-Minute Epoxy

Make copies of Templates A and B. Use a silver permanent marker to trace the outline of Template A onto a piece of the 90 COE Thin Stiff Black and Opaque White glass. Cut the glass blanks, place the white glass directly on top of the black glass, and fire to a full fuse using the suggested firing schedule at the end of the tutorial. Clean the fused pendant blank with denatured alcohol.

1

*Cut out Template B and attach it to the Saral transfer paper with tape.*



Cut a piece of red Saral transfer paper that is slightly wider than Template B. Place it, dark side down, on your work surface and place Template B on top. Cut 2 pieces of clear tape about 1/2" long, place the tape along the edges of Template B, and tape the template to the light side of the red transfer paper.

Leave enough tape overhanging to be wrapped around the fused glass blank. Fold along the red lines of the template and use that as a guide for placement on the fused glass blank. Center the template on the glass and securely wrap the tape around the blank.

2

*With a fine point pen or pencil, use firm pressure to trace the image from Template B onto the glass.*



Use firm pressure to trace the black lines of Template B onto the glass. Do not trace the red fold lines. When finished, carefully check to make sure that you have traced the whole design, then gently remove Template B, transfer paper, and tape.

3

*Use the Black Glassline paint with a fine-tipped nib to trace over the red lines.*



Roll a piece of tape and place it on the back of the traced glass pendant. Place the pendant in the center of one clear 3" piece of scrap glass and secure it by pushing down. Shake the bottle of Black Glassline paint, mixing it well. Remove the cap and push the fine-tipped nib onto the bottle, leaving the metal wire in the top of the nib.

Use a paper towel or piece of paper as your work surface and place the clear glass with the pendant on the paper towel. Remove the wire tip from the nib and hold the Black Glassline bottle upside down like a pen. Practice on the paper towel until you have control of the flow from the paint bottle. Gently squeeze the bottle until a fine line of black starts to come out. If the bottle becomes clogged, use the wire tip to clean out the nib.

Trace over the red transfer lines with the Black Glassline paint. Don't worry if it's messy. Let the paint dry. When you're finished with the paint, always replace the wire back into the tip to keep the paint from drying out and clogging the tip.

4

*When the paint is dry, clean up the lines with a toothpick.*



After cleaning up the lines, gently wipe the paint dust onto a cotton pad with a **dry** cotton swab or soft brush. Do not use anything wet, since it will wipe off the traced lines. **Make sure you have a respirator mask on and do not blow the dust away.**

Reapply the Black Glassline paint where needed, then clean again when the paint is dry. Repeat the process until you are happy with the black outline. Let the paint dry completely.

5

*Mix the Dark Blue Glassline paint for the tree.*



Shake the Dark Blue Glassline paint bottle and place a small amount of paint on the second piece of clear scrap glass. Fill one of the disposable cups with distilled water and use your paintbrush to add a few drops of water to the paint, mixing it to the consistency of milk. Float or dab some of the paint in between the black outline of the tree, pushing the paint up to the black lines while trying to not disturb them. (See the Glassline Paint reference.)

Let the Dark Blue paint dry, then do the same with the Carbon Blue for the sky, Gray for the hat and coat, Black for the hair, and Turquoise for the eyes and dots on the hat. Let the colors dry.

*Paint the pom-poms, the snowflake on Kayleigh's hat, and the highlights for the eyes.*

6



Shake the White Glassline bottle and squeeze a few drops onto the glass palette. This color does not have to be diluted, since it is usually the right consistency straight out of the bottle. Use a brush to paint the pom-poms, snowflake, and dots on the hat trim. Next, pick up some White Glassline paint with the end of a toothpick and add a small dot for highlights in the pupils of Kayleigh's and Oscar's eyes.

When the paint is dry, take the piece off of the clear glass and dispose of the tape. Carefully turn the piece over and place it on a cotton pad, trying to not disturb the paint on the front. Sign the back with the White Glassline paint and let it dry undisturbed. When dry, take a damp cotton swab and clean the edges and back, then fire to the Glassline firing schedule provided at the end of the tutorial.

7

*Add the finishing details with the Kaiser Red and Sky Blue enamels.*



Stir the Kaiser Red enamel with a toothpick and place a small dot of enamel on a clean palette. For best results when using Kaiser paints, make sure that they are stirred and mixed very well. Using the Red full strength, dot Kayleigh's lips and fingernails plus Oscar's nose and ears with your paintbrush.

Stir the Kaiser Sky Blue enamel and place a small dot on your palette. Dip your brush in distilled water and add a small drop to the palette. Mix a small amount of the water with the Sky Blue enamel so that it is just a bit thinner than full strength. Use the Sky Blue color to paint a shadow under the pom-pom and around the snowflake on Kayleigh's hat, on her forehead underneath her hat, around her eyes, down her nose and the sides of her face, under her chin, and around her arms. Now paint a shadow behind Oscar's head, around his jaw and chin, under his paws, around his tail, and finally under the pom-pom he is playing with. (See the Kaiser Paint reference image.) Clean the palette and put the Kaiser enamel paints away.

8

*Add the snowflakes.*



On a clean palette, shake the Glassline White paint again and put a few drops on your palette. With a toothpick or a brush, whichever you feel more comfortable using, apply white dots of snow. (See the Snowflake reference image.) Let the paint dry completely, at least a few hours. The Kaiser enamel will take longer to dry than the Glassline paint. When the piece is completely dry, fire it using the Kaiser schedule provided at the end of the tutorial. Note that the Glassline paint used for the snowflakes will be slightly raised, because it does not fully fuse. If you do not want this effect, you can apply the snow in step 7 instead.



9



*Apply the pendant bail.*

Using safety glasses and a mask, place the finished piece face-down on a paper towel and drop some water on the surface with a sponge. Use wet sandpaper or a Dremel tool with a diamond bit to scuff up the area where the bail will be glued. Keep the glass surface wet while doing this. Do the same with your bail. Clean the surfaces with denatured alcohol and let dry.

Meanwhile mix up a small amount of the 5-minute epoxy in a small disposable cup. With a toothpick, place a small amount of glue on the bail as well as the back of the glass. Put them together and hold them in place while cleaning the glue that seeps out the sides with a dry cotton swab. Clamp them together with a binder clip and let them sit undisturbed for 24 hours.

**GPO**





## Firing Schedules

I use Bullseye Opaque White and Thin Stiff Black. This combination melts the black and white at almost the same time and works well for firing and refiring. When regular black glass is used, it tends to go rounder more quickly when taken to 1505°F. I push my firings and just let them cool. This glass is very forgiving, and I have never had a piece break or crack.

These firing schedules were tested in my kiln, which is a very small Paragon kiln. You will have to test your own kiln, since they all fire a little differently. You can test your kiln for the paint temperatures by putting a blank fused pendant, one that is fused but not painted, in your kiln and firing to the Glassline schedule. If your blank pendant rounds out in shape, lower the temperature by 5°F, then test again with a new blank pendant. Do this until the pendant does not round out and stays the same shape as when you put it in the kiln. Lower the Kaiser and Glassline Temperatures accordingly.

### Full Fuse Pendant Blanks Firing Schedule

Ramp 1500°F/hr to 1450°F and hold 30 min.

### Glassline Paint Firing Schedule

Ramp 1700°F/hr to 1505°F and hold 5 min.

### Kaiser Enamel Firing Schedule

Ramp 1700°F/hr to 1295°F and hold 10 min.



Photo by  
Louise Cooper Godwin

*Pat Wilde is the original creator of Painted Fused Glass Pendants on eBay and has been featured in eBay Pulse many times, winning several awards for her one-of-a-kind creations. She is a self-taught glass painter and has experimented with glass paints for 20 years, developing many different techniques and perfecting her style. Her Painted Ladies have been copied by many, and her original techniques with glass paints have inspired and paved the path for glass painters everywhere.*

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# Crow on a Branch

*Design, Fabrication, and Text by Roz Stanton*

Celebrate the wildlife that is all around us with these two projects for creating glass art during the long winter months. The main event is a design featuring a crow perched amid branches and holly berries highlighted against a yellow moon. The bonus round includes ways to make a dragonfly from the scrap cuttings left over after cutting the Tekta glass base. I hope you will enjoy creating these projects as much as I have.





### 90 COE Glass

3 mm Lead-Free Clear for the Glass Base, 11-1/2" Circle (2)

Crystal Clear Fine Frit

#### Alcohol Inks

Espresso Clover Lettuce

Caramel Black Sailboat Blue

Raspberry Watermelon

Valencia Orange

Silver and Copper Metallic Fixative

#### Inspirational Glass and Metal Art

Stainless Steel Embossing Elements

Aluminum Stand

#### Tools and Materials

1/8" Fiber Blanket ThinFire Paper

Thin-Tipped Paint Brush Rubbing Alcohol

Cotton Swabs Paint Tray Black Permanent Marker

Rotary Tile Cutters

1

*Cut 2 circles from two 12" square of 3 mm clear.*



I always start by cutting my clear glass in squares measured in dividable numbers (6", 8", 12"), then cut a circle from the square. This one is a 12" square, which gives me an 11-1/2" circle. I will need two of them to make a 6 mm full fused circle. When you're finished cutting the clear circles, save the corners for using to make a dragonfly.

2

*Lightly sprinkle crystal clear fine frit on what will be the bottom circle.*



If you do not have clear frit, you can nip very small pieces from the clear scrap glass and space 4 to 5 pieces on the very outside edge of the circle. This stops the edge from sealing first and creating excess bubbles. I like them, but some artists don't.

Put the two circles on a prepared kiln shelf, one on top of the other with the frit-covered disk on the bottom. Make sure you have enough room for the dragonfly on the kiln shelf, since you will fire them at the same time.

3

*Use the corner pieces of the clear left over from cutting the circles for the dragonfly design.*



Draw the wing and body on the scrap corners with a black permanent marker, which will burn off when the pieces are fired. Using rotary tile cutters, nip the black marks off. You don't have to be too precise, since the dragonfly pieces will fire nicely.

Put the narrow ends of the wings on top of the dragonfly's body. With the scrap from the nipped pieces, put a second layer on the body. You don't have to add any extra glass to the wings. Again, the pieces you add don't have to be perfect. Place the dragonfly in the kiln next to the glass disks.

4

*Fire the dragonfly to a full fuse along with the glass disks using the suggested schedule at the end of the tutorial.*



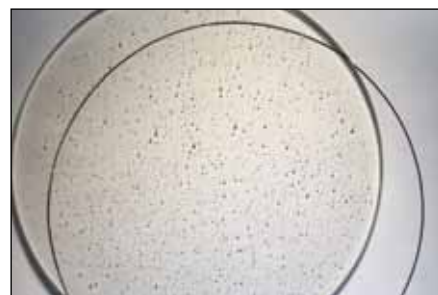
This is what the fully fused dragonfly will look like. I will show you how to paint it with the alcohol ink later.

### Creating the Design Elements

To create the indentations where the design will be colored with the alcohol inks, you will need to arrange pieces of fiber blanket and stainless steel embossing elements on the kiln shelf. When the glass disk is placed on top and fired, it will slump down over the design pieces to create the design.

5

*On a prepared kiln shelf, trace the fused glass disk onto ThinFire paper with a permanent marker.*



6

*Gather the fiber blanket shapes for the moon, leaves, and berries, and the stainless steel elements for the crow and branches.*



The white moon, leaves, and berries are cut from 1/8" fiber blanket. You can cut as many of the leaves and berries as you want to use. The moon can be any size. The black embossing elements are stainless steel cutouts, which can be used over and over again.

**7**  
*Layer the fiber blanket and stainless steel embossing elements within the traced circle to create the design.*

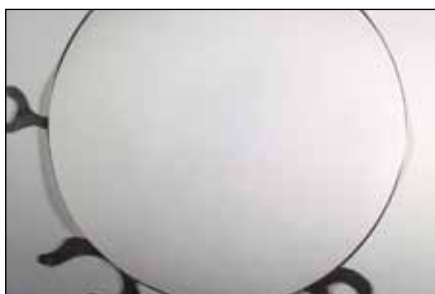


The only rule to creating this design with stainless steel and fiber blanket is to not layer more than three design pieces on top of each other. The stainless steel can be overlapped with other pieces, either stainless steel or fiber paper.

Here I have arranged the design with the two small branches under the large branch. The crow is on top of the moon and the large branch. The leaves are arranged on and around the branches. There are two berries on top of the branch and one beside the branch.

You will notice that not all of the branches are inside the circle. That is okay, since it gives you lots of flexibility to create new and random pictures. On the next picture you can change the position of the design elements, add more, or eliminate some. Be creative!

**8**  
*Cut a circle the size of the fused disk from the ThinFire paper and lay the paper on top of the design elements.*



Now lay the fused glass disk on top of everything. The ThinFire paper will stop the glass from fusing onto the stainless steel. **Very important!**

**9**  
*Put the shelf into the kiln and fire using the suggested schedule at the end of the tutorial.*



This is what it will look like when it comes out of the kiln.

## Adding the Colors

It's time to add the colors to the design with the alcohol inks. The colors that I used here are listed in the tools and materials at the beginning of the tutorial, but feel free to choose your own colors.

**10**

*Prepare the alcohol inks and gather the other materials you will need for coloring the design.*



If the ink dries up in the trays, not to worry. Just put some alcohol in one of the small cups and dip the brush into the alcohol, then add it to the color you want to use. The alcohol will reconstitute the ink.

**11**

*Color in the design.*



You can paint the back of the glass disk by looking at the back and painting, or you can paint the back by looking at the front and using your brush from the back. I add detail by using the black permanent marker on the back and the front.

You can remove any areas that you aren't happy with by dipping the cotton swabs into the alcohol and gently rubbing. You can also take off all the color and start again. That is the best part about painting with alcohol ink. Nothing is permanent until you want it to be. Try not to be too perfect. You want to create the illusion of using watercolor paints.

The colors I used are Yellow, Orange, and Copper for the sun/moon; Black and Silver for the crow; Espresso, Caramel, and touches of Green and Black for the branch; and Red outlined on the right side with a black permanent marker for the berries. You can also add wisps to the branch with the permanent marker.

**12**

*Paint the dragonfly.*



The dragonfly was painted with Sailboat Blue, Raspberry, and Sunshine Yellow for the wings plus Clover Green and Lettuce Green for the body. To finish, add a streak of silver fixative to the wings and body. This creates a mirror look behind the alcohol ink.

If you really enjoy working with the alcohol inks, join their group on Facebook. They share lots of tips and techniques. For any questions about the Inspirational Glass and Metal Art stand or stainless steel embossing elements, contact me at [roz@displayglassart.com](mailto:roz@displayglassart.com).

**GPQ**



## Firing Schedules

Remember that all kilns fire differently, and you may need to make adjustments in the schedules to fit your own kiln.

### Full Fuse Schedule for Clear Disk and Dragonfly

Segment 1: Ramp 400°F/hr to 960°F and hold 20 min.  
Segment 2: Ramp 9999 (AFAP\*) to 1150°F and no hold.  
Segment 3: Ramp 150°F/hr to 1250°F and no hold.  
Segment 4: Ramp 9999 (AFAP\*) to 1475°F and hold 20 min.  
Segment 5: Ramp 9999 (AFAP\*) to 960°F and hold 60 min.  
Segment 6: Ramp 250°F/hr to 750°F and no hold.  
\*as fast as possible

### Firing Schedule for Fusing Clear Glass Disk Over Design Elements

Segment 1: Ramp 350°F/hr to 960°F and hold 30 min.  
Segment 2: Ramp 9999 (AFAP\*) to 1410°F and hold 15 min.  
Segment 3: Ramp 9999 (AFAP\*) to 906°F and hold 60 min.  
Segment 4: Ramp 250°F/hr to 750°F and no hold.



*Rosalind Stanton started her career in glass in 2005 after she attended the Glass Craft & Bead Expo in Las Vegas, Nevada, and realized that she was addicted to glass art. She spends hours in her studio experimenting with powdered, fine, and coarse frit combined with scraps of glass. By layering, tacking, stacking, breaking, and re-fusing, she has pushed the limits of glass fusing.*

*Rosalind's favorite project is making 21-inch platters, but she had to stop when she ran out of room to stack them. That led to her second addiction—cutting metal stands and glass adornments. Together with her husband John, the welder, they have added another element to her ability to produce glass platters. Now they can be displayed, used, washed, and put back on display as functional and saleable glass art. Check out these metal accessories on their website at [www.displayglassart.com](http://www.displayglassart.com).*



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# Memories of Whidbey: Blue Heron

## An Introduction to Screen Print Techniques and Fused Glass

*Design, Demonstration, and Text by Dana Worley*



When I travel, I usually have my camera along and I take a lot of pictures. I am always looking for ways to incorporate these images into my fused glass art. During the 2017 Glass Craft & Bead Expo, I took a screen printing class with Gail Stouffer. The course material covered selecting and editing images for screen printing as well as one of the processes Gail uses for transferring those images to glass. The piece you see here, *Memories of Whidbey: Blue Heron*, was created using this screen printing process.



### 96 COE Glass

Blackberry Cream Opal Swirl, 9" Circle  
Clear, 9" Circle

Blue Hydrangea, 6" Circle  
Course and Medium Clear Frit  
Medium Transparent Blue Frit

### Tools and Materials

EZScreenPrint Standard Mini Stencil  
Color Line Black Silk Screen Paste  
Lectralite UV Exposure Unit  
ThinFire Paper Glass Pebbles  
Palette Knife or Other Mixing Tool  
Blue Painters Tape Respirator Mask  
90972 Sundance Art Glass Stand

*Screen print of  
heron after  
exposure to  
UV light  
and washout*



The photo was edited, then burned to screen. I used screen printing material from EZScreenPrint and processed the screens using a Lectralite UV exposure unit. The EZScreenPrint material comes with full instructions for processing and washout, and includes information for processing with sunlight if you don't have a UV light available. I ran a couple of screens to get the exposure time just right.

### Applying the Screened Image to the Glass



*Heron screen printed  
on a 6" blue hydrangea  
glass circle*

First, I screen printed the heron on a 6" circle of glass with the Color Line Black Screen Paste Enamel. Using blue painters tape to secure the top edge of the screen to the glass, I applied a line of enamel across the entire top of the screen. Then I used a screen printing squeegee to steadily pull the ink downward. Once the ink was pulled down over the screen print stencil, I carefully lifted the stencil upward and back to remove it from the glass.



*Photo of a heron on a rock outcropping  
taken at Whidbey Island, Washington*

### Selecting and Processing the Image to Screen

I thought I would share a few photos I took during the creation of this piece. I won't cover the entire screen printing process in this article, but here are process photos that provide a glimpse of what went into creating this beautiful piece of fused glass art.

*Edited close-up  
of the heron*



The image I chose for screen printing was edited from a photograph I took during a visit to Whidbey Island, Washington, taken just before sunset while I was sitting on the beach. I took a couple of photos, including a close-up of a heron perched on top of a rock outcropping. That image of the heron proved to offer the excellent contrast that is required for making a screen print stencil.

*Screen printed design  
placed atop an 9"  
circle of Blackberry  
and Cream swirled glass*



The next step was to center the screen printed circle on a 9" piece of the Blackberry Cream opal swirl. I oriented the grain of the glass to take advantage of what looked to me like water and sky.

Into the kiln the piece went, along with two other pieces that I had screened with the same image. I used the following full fuse schedule, but each kiln fires differently. You may need to make adjustments to the schedule for your own kiln.



Screen printed fused glass images in the kiln ready for firing



#### Full Fuse Schedule

Segment 1: Ramp 300°F/hr to 1100°F and hold 30 min.  
 Segment 2: Ramp 50°F/hr to 1250°F and hold 60 min.  
 Segment 3: Ramp 300°F/hr to 1460°F and hold 15 min.  
 Segment 4: Ramp 1500°F/hr to 950°F and hold 150 min.  
 Segment 5: Ramp 100°F/hr to 700°F and no hold.

Note that the rectangular black-and-white pattern bar piece shown in the kiln was thicker than the other two round pieces, which meant a longer anneal.

#### Adding Dimension with Frit and Glass Pebbles

In a second firing, I tack-fused coarse and medium frit and fused glass pebbles to the glass to look like rocks and ocean spray. **Remember that any time you are working with frit or powdered glass, it is essential to wear a respirator mask or other breathing protection to keep from inhaling any airborne glass particles.** I used the following conservative schedule for the tack fuse, but again, you may need to make adjustments for your particular kiln.

#### Tack Fuse Schedule

Segment 1: Ramp 200°F/hr to 1100°F and hold 60 min.  
 Segment 2: Ramp 200°F/hr to 1325°F and hold 15 min.  
 Segment 3: Ramp 1500°F/hr to 950°F and hold 240 min.  
 Segment 4: Ramp 100°F/hr to 700°F and no hold.

Finally, the finished project was mounted in a stand, ready to remind me of my wonderful trip to Whidbey Island. Screen printed images can be an excellent way to preserve your memories in glass. I hope this article will inspire you to create some of your own.

GPO

#### Additional Resources

- For a video with more information on creating your own screen printed glass art using Color Line Silk Screen Paste, a product manufactured in Switzerland by Creative Glass and available from Bullseye Glass Co., visit the following link, [www.youtube.com/watch?v=V4F5qrNR4iU](http://www.youtube.com/watch?v=V4F5qrNR4iU).
- Visit [ezscreenprint.com](http://ezscreenprint.com) to find the EZScreenPrint Refill Stencils.
- Check Gail Stouffer's website, [www.stoufferstudios.com](http://www.stoufferstudios.com), for more information and upcoming workshops offered by Gail on screen printing techniques.

*Dana Worley, an emerging kilnformed 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](http://jestersbaubles.blogspot.com). In her full-time job, Dana works as 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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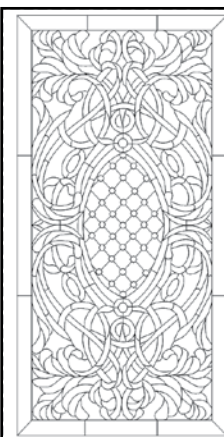


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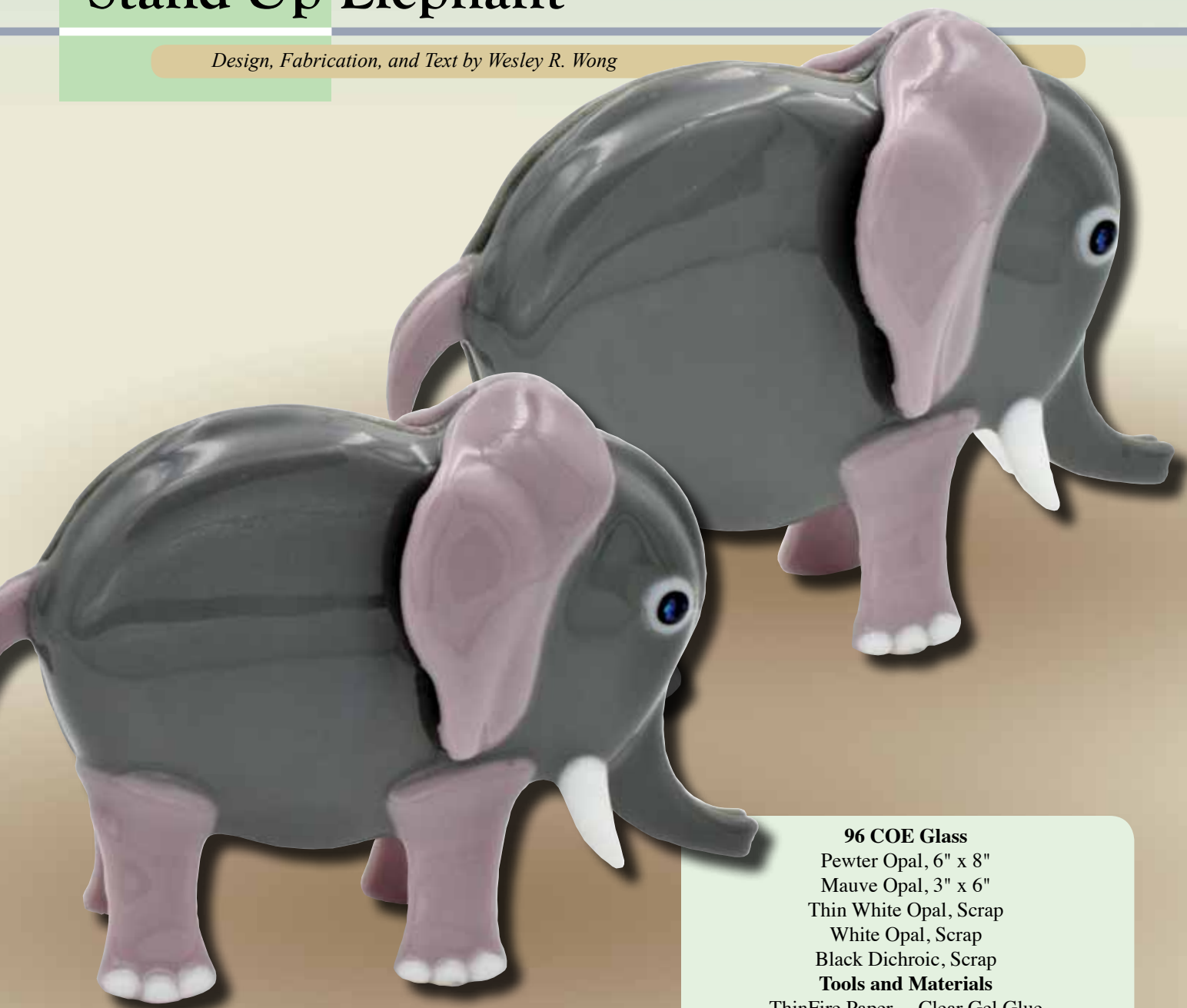
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# Stand-Up Elephant

*Design, Fabrication, and Text by Wesley R. Wong*



The inspiration for this project came from my dimensional fused glass goldfish that appeared in the Summer 2015 issue of *Glass Patterns Quarterly*. I adapted that pattern and created two halves to make a freestanding goldfish. I was so happy with the result that I thought it would be fun to create other stand-up animals.

“The elephant in the room” is an English idiom for a serious issue or problem that is being ignored. Turn this phrase into a fun, creative, and literal fused glass elephant for your room! Elephants are often used in feng shui to energize certain areas of the home and for good luck. The elephant is associated with Buddha and the Indian deity Ganesh and can be used to symbolize power, wisdom, strength, protection of the home, fertility, and general good luck.

## 96 COE Glass

Pewter Opal, 6" x 8"

Mauve Opal, 3" x 6"

Thin White Opal, Scrap

White Opal, Scrap

Black Dichroic, Scrap

## Tools and Materials

ThinFire Paper Clear Gel Glue

1/8" Fiber Paper 1/4" Fiber Paper

Light Box or Carbon Paper Ballpoint Pen

Rubber Bands Two-Part 5-Minute Clear Epoxy

Toothpick Glass Cutter Running Pliers

Breaking Pliers Grinder Ring Saw

Scissors Wheeled Mosaic Nipper

Permanent Marker Ruler

Petroleum Jelly or Clear Lip Balm

Card Stock Metal File

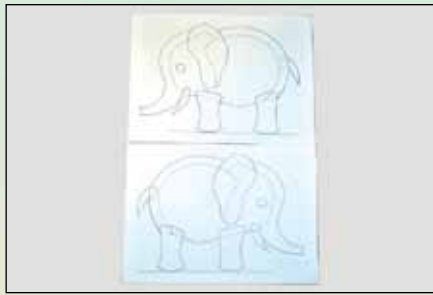
Diamond Sanding Pad Safety Glasses

Dust Mask Tweezers



1

Trace the elephant pattern onto the ThinFire paper.

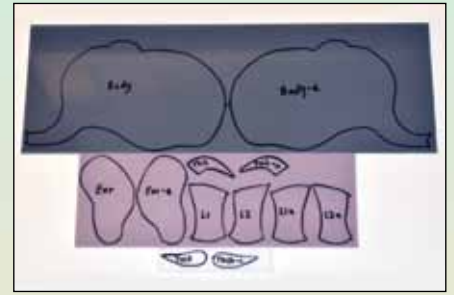


Cut two 4-1/2" x 6-1/4" sheets of ThinFire paper and trace the elephant pattern onto one of the ThinFire sheets using a light box. Allow at least a 1/4" margin around the edges. The dotted lines indicate the sections of the glass that are hidden below the other pieces of glass. The dashed lines are for the fiber paper pieces that will prop up the body and ear. Flip the pattern on the light box and trace the pattern onto the second ThinFire sheet.

The pattern can also be traced onto the ThinFire sheets with carbon paper by stacking the ThinFire paper and carbon paper in the following order, bottom layer to top layer: carbon paper (carbon side up), ThinFire paper (coated side down), ThinFire paper (coated side up), carbon paper (carbon side down), and pattern sheet. Press hard with a ballpoint pen while tracing so that the pattern can transfer through all the layers of paper and carbon.

2

Trace the pattern onto the glass and cut out the pieces.



Copy the glass pattern onto card stock and trace the pattern pieces onto the glass with a permanent marker. Flip each of the pattern pieces and trace a second set of the pieces for the right-facing elephant, adding the letter A to each label. Cut out the glass pieces with a glass cutter.

There are two inside curves on the elephant body near the trunk that might require a ring saw to cut, and you may be tempted to cut the entire body with the ring saw. To save time plus wear and tear on the ring saw, however, cut as closely as possible with the glass cutter, then fine-tune the cuts with the ring saw and grinder. Applying a thin coat of petroleum jelly or lip balm to the marker lines before using the ring saw or grinder will keep the lines from vanishing too quickly.

3

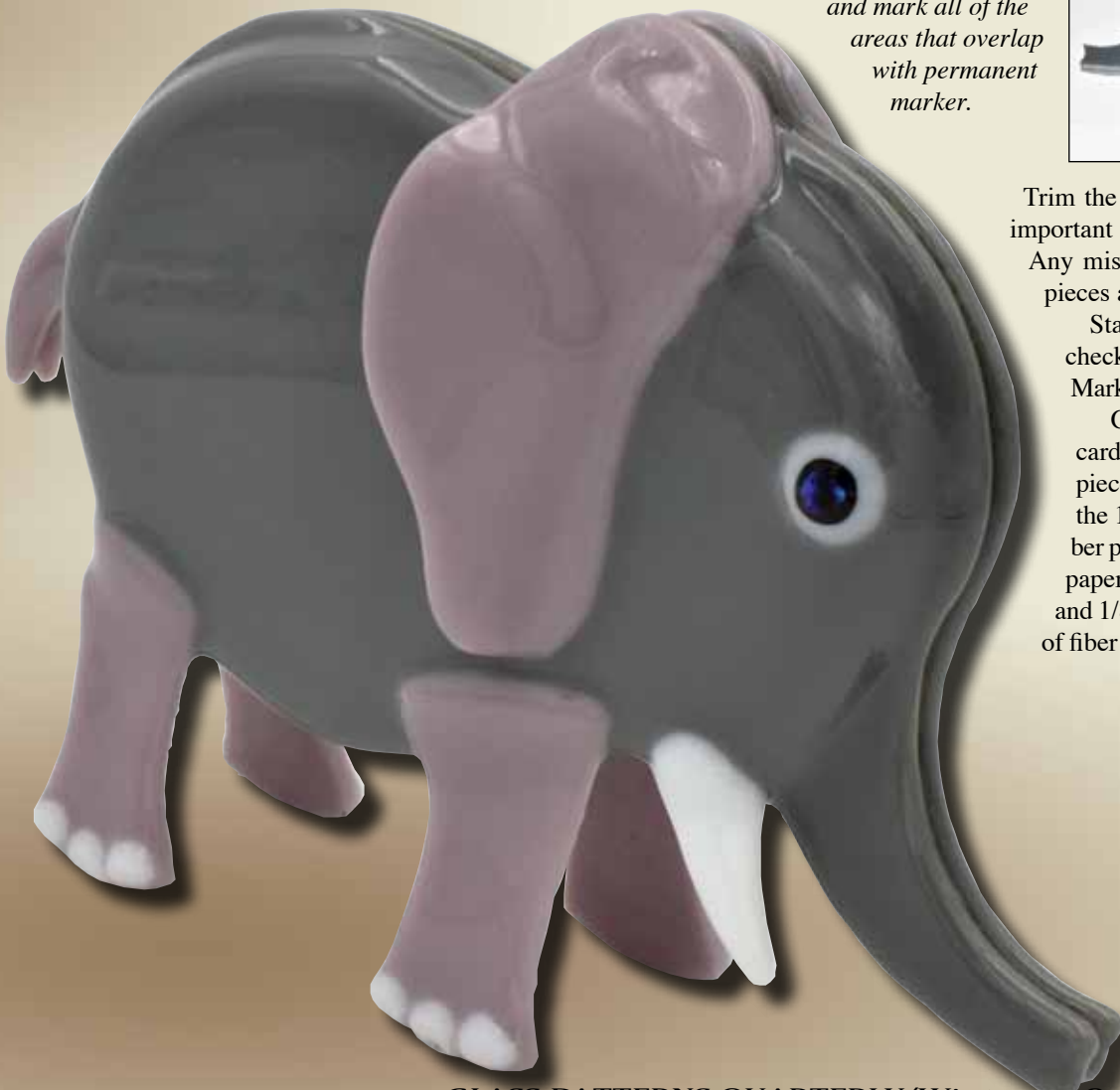
Stack the two elephant bodies back to back and mark all of the areas that overlap with permanent marker.



Trim the excess glass with the grinder. It is important that the two pieces match in shape. Any mismatch will be noticeable when the pieces are joined after firing.

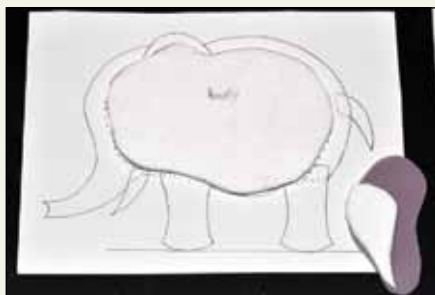
Stack the tail pieces back to back and check once again for the matching shape. Mark and trim the excess glass as needed.

Copy the fiber paper patterns onto card stock. Trace and cut the fiber paper pieces for the body, legs, and tusks out of the 1/4" fiber paper. Trace and cut the fiber pieces for the ears out of the 1/8" fiber paper. Flip the patterns over on the 1/4" and 1/8" fiber paper and make a second set of fiber pieces for the right-facing elephant.



4

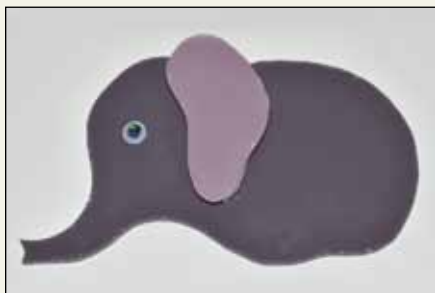
Glue the fiber paper body onto ThinFire paper for the left-facing elephant.



Make sure there is at least 1/4" of space between the edge of the fiber paper and the edge of the elephant body. Glue the fiber ear onto the back of the glass ear. Save the fiber paper scraps for a later step.

5

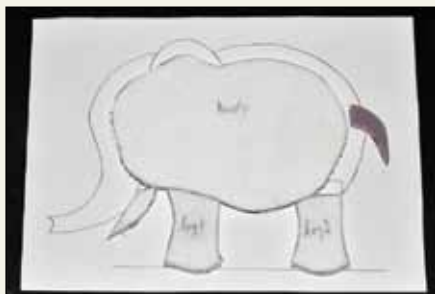
Cut small round circles from the thin white glass and the dichroic scrap for the eye.



Glue the eye onto the elephant body along with the ear, which will be slightly elevated with the fiber paper underneath it.

6

Glue the glass tail, fiber paper legs, and tusk onto the ThinFire paper.



7

Center and glue the elephant body onto the fiber paper body.



Cut out the toenails from the thin white glass and glue them onto the legs. Glue the legs and tusk so that they connect with the body and are resting above the fiber paper supports. Carefully lift the 1/4" fiber paper supporting the legs and tuck a scrap piece of the 1/4" fiber paper underneath it to further elevate the legs. Place a ruler along the bottom edge of the legs to verify that they are positioned correctly along the bottom guide line.

8

Repeat steps 4 through 7 with the right-facing elephant parts.



9

Fuse the elephant sections.



Place the assembled elephant sections onto a kiln shelf, load it into the kiln, and fire to the following suggested contour fuse schedule. Remember that all kilns fire differently, so you may need to make some adjustments for your own kiln.

### Contour Fusing Schedule

Segment 1: Ramp 500°F/hr to 450°F and hold 10 min.

Segment 2: Ramp 550°F/hr to 1365°F and hold 10 min.

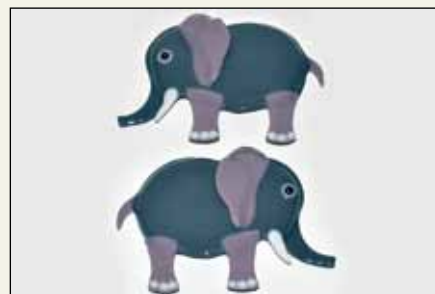
Segment 3: Ramp 9999 (AFAP\*) to 950°F and hold 45 min.

Segment 4: Ramp 150°F/hr to 750°F and hold 10 min.

\*as fast as possible

10

Remove the elephant sections from the kiln and discard the fiber paper and ThinFire paper.



Wear a dust mask to prevent inhaling the powdery residue from the ThinFire paper. Use tweezers to dig out the fiber paper from the ears. The glass edges of the ears, legs, and belly may be sharp from the shrinkage of the glass during the firing. A few passes with a metal file can smooth out some of the sharp edges. Wash thoroughly with soap and water.

11

Join the two sections of the elephant together and secure with rubber bands.





Inspect the elephant from all angles and make any adjustments as needed. One or more of the legs may not be touching the table. Mark the legs that need to be trimmed. Grind the legs that require trimming so that all of the legs make contact with the table.

Wet the diamond sanding pad and sand the back side of the elephants along the outer edges, the tail, and the trunk.

12



Prepare the epoxy and apply to the elephant.

13



Prepare the two-part 5-minute epoxy according to the directions on the package and squeeze some onto an index card. Apply the epoxy with a toothpick to the backside edges, the trunk, and the tail.

14

Join the two sections of the elephant and secure with rubber bands.



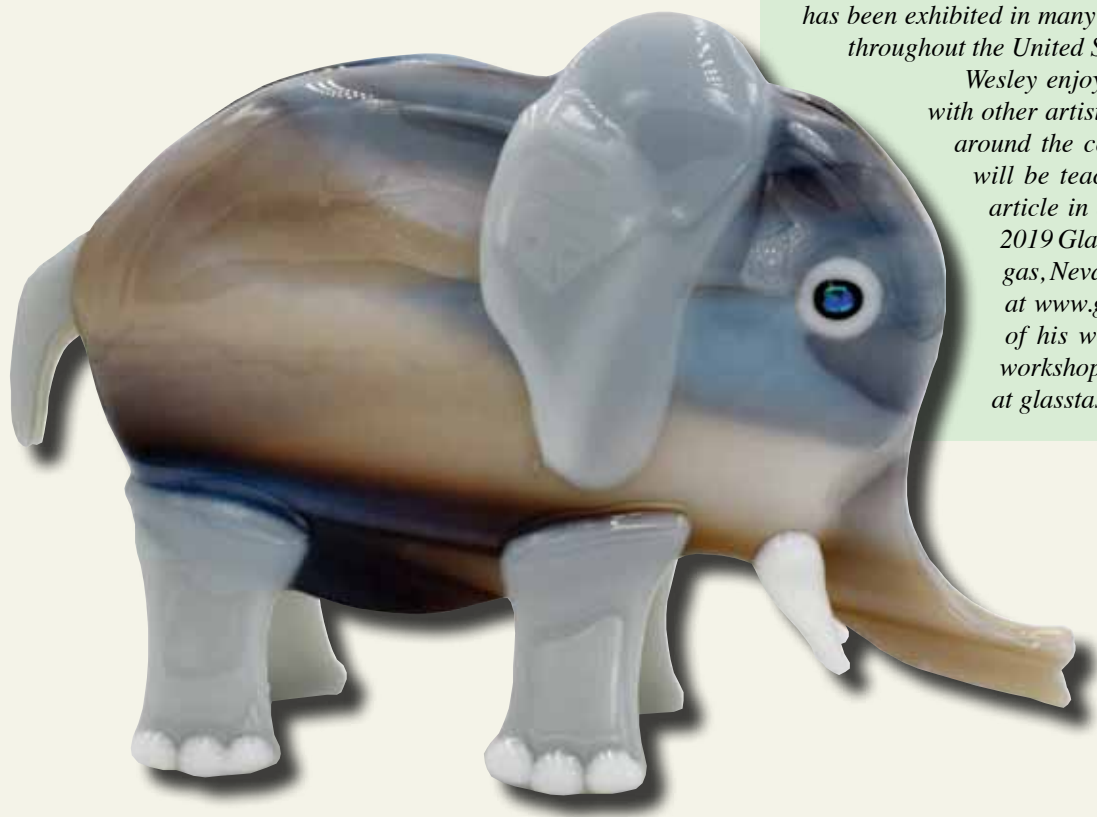
Make any adjustments to the alignment before the epoxy has set. Lay the piece aside for a couple of hours to allow the epoxy to cure.

15

Remove the rubber bands and clean off any excess epoxy or residue with water and a rag.



GPO



Wesley R. Wong is an award-winning artist who designs and produces custom glass art from his studio in San Jose, California. His passion for glass started in 1981 with stained glass, which eventually lead him into mosaics and fused glass. His work features lots of bright colors and intricate patterns and has been exhibited in many juried glass and mosaic shows throughout the United States.



Wesley enjoys sharing his glass knowledge with other artists and teaches glass workshops around the country and internationally. He will be teaching the techniques from this article in a stand-up critters class at the 2019 Glass Craft & Bead Expo in Las Vegas, Nevada. Visit Wesley's studio website at [www.glasstastique.com](http://www.glasstastique.com) to view more of his work. For more information on workshops, you can contact him by e-mail at [glasstastique@gmail.com](mailto:glasstastique@gmail.com).

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# Mini Button Bicycle

*Design, Fabrication, and Text by Susan McGarry*



The bicycle brings us fond memories of sunshine and the warm wind in our hair. For many of us it was our first mode of transportation and our first taste of freedom to explore farther than our own front yards. Let's make a fused glass bicycle as a reminder.

This cute little bicycle is made with molded glass buttons and some simple wire wrapping. The size of the bicycle will depend on the mold you choose. Smaller pieces can be made into a pendant or a barrette. This adorable little project can be constructed very quickly and makes a great last-minute holiday gift.

## **Compatible COE Glass**

Dichroic or Other Desired Glass Types, Scrap

## **Tools and Materials**

Creative Paradise Button Mold

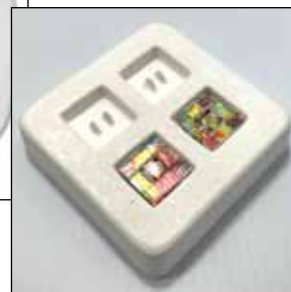
Wire Wrapping Tools

18-Gauge Craft Wire



1

*Fill the button molds with scrap glass and fuse.*



Follow the instructions for the button mold you selected to fuse 2 buttons. I used dichroic and clear scrap for my buttons. You don't have to use a certain brand of glass. This project is a great way to use your scraps.

Follow the fusing directions on the button mold. I didn't put a firing program in this tutorial, because it will vary according to the size of your mold. This is a great way to show another use for a mold that you might only use for one purpose.



In the next step, we'll begin the wire wrapping. You can follow the instructions very carefully or use your creativity and imagination to make the perfect bike for you. The most important thing will be to arrange the holes of the buttons in different orientations. One of the buttons should have the holes going up and down, and the other button should have the holes going side to side. This will make it easier to form the wire into the frame of the bicycle. You will need a piece of wire about 18" long in a color that is complementary to your buttons.

2

Start by making the handle bars.



Don't make them too big if you are planning on using the bicycle for a pendant.

3

Run the wire through the top hole of the first button and back up to wrap it onto itself a few times.



4



Angle the wire down toward the second button and through the hole closest to the first button.

Wrap the wire around itself a few times.

5

Bend the wire over the back tire following the rounded shape of the tire.



6

Make a sharp bend in the wire toward the front tire to give the appearance of a seat and top cross bar.



7

Wrap the wire around the base of the handle bars and trim it close to the handle bar wire.



8

Add the kickstand, if desired.



For a freestanding bicycle, simply add a kickstand by wrapping a new piece of wire around the base of the frame. Trim the wire so that it barely touches the ground when upright, then bend it to the back slightly.

GPO

Susan McGarry has been passionate about glass since her first glass class and has exhibited her fused glass jewelry and artwork in shops throughout the United States and Ireland. She teaches through tutorials, books, webinars, live classes, and Facebook Live broadcasts.

The artist combines colors in a unique way to create one-of-a-kind designs and feels that working with glass is exciting and challenging, and that it taps into the imagination for creating something new. In 2012 she started her business, ArtiFill.com, manufacturing molds and jewelry findings for artist and crafters.

Susan was born and raised in southern California. Her home and glass studio are now north of the San Francisco Bay area. You can find Susan McGarry Glass at [www.facebook.com/SusanMcGarryGlass](https://www.facebook.com/SusanMcGarryGlass) as well as on Instagram.



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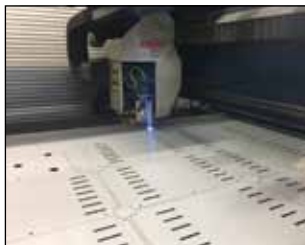


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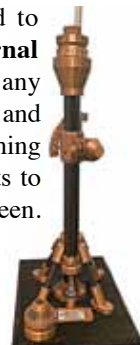
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**The 2019 Glass Cutting Tournament** will be held in Las Vegas, Nevada, at 5 p.m. on Friday, April 5, 2019, to celebrate the **25th Anniversary of the**

**Glass Craft & Bead Expo**. Many prizes are available for the winners, and in the new format for 2019, more experienced entrants will be competing against the super pros for a true crowning of the champion. Winners



will be determined by the number of pieces cut in three minutes, and accuracy will be considered. Visit the KBW Glass Art Educational Foundation Booth (#1023) before 4:00 p.m. on Friday and fill out the simple entry form. Anyone is eligible to enter, even past participants. Names will be drawn at 4:00 p.m. and posted at both the KBW booth and the stage area where the contest will take place. Be sure to check the boards for your name, since you must be present to compete and win. It's free to enter, and there will be prizes for the top cutters in each of the rounds. All participants will be cutting clear glass from the same pattern, which is available on the KBW Facebook page. Start practicing today!  
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**The Glass Craft & Bead Expo (GCBE)** will celebrate its **upcoming 25th anniversary celebration** April 3–7, 2019, at the South Point



Convention Center in Las Vegas, Nevada. Heralded as one of the most professional family oriented and educational glass art and bead trade show events in the United States, this event has it all. The team at Las Vegas Management (LVM) has spent the last two and a half decades refining a screening and selection method that brings with it the newest trending methods in hot, war, and cold glass specialty classes taught by the very best handpicked experts from

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# Kiln Corner

## Seven Ways to Fuse Glass on a Budget

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.*

**H**ave you ever noticed that no matter how many times you have fired a kiln, opening it is still exciting? You never know exactly what you will find. Here are some examples of how you can experience that, even on a low budget.

**Make frit (powdered glass) from colored glass bottles and fuse it into a mold.** Blue bottles are especially beautiful. Use the frit made from only one bottle per mold to eliminate the possibility of incompatible glass. The face created by Sheila Collins was made from a crushed brown beer bottle. *(Note: Please use extreme care with frit. Always wear safety glasses and gloves, and keep your work area clean to avoid cuts.)*

**In spite of your disappointment, don't throw away fused pieces that have cracks or bubbles.** Cut them up or turn them into frit or stringers and recycle the glass. Then learn what caused the defects so you don't repeat them. Fusing is as much science as it is art, and every mistake has a reason.

Don't automatically throw away mistakes. Some of my favorite glass pieces were mistakes. For instance, hair spray added a silvery cast to the blue dichroic piece shown here. The discoloration was an exquisite gift from the "kiln gods."

**Value even the most tiny shard of dichroic glass.** It has helped to create today's glass fusing movement. Dichroic glass, which comes in many styles, can glitter like diamonds or add a soft glow to your art. It is expensive, but you don't need much. Sometimes the tiniest sliver on a dark background is more dramatic than large areas of dichroic.

**Cut dichroic glass on a sheet of paper.** After you have finished cutting the glass, fold the paper in half and pour the dichroic shards into a jar. Never waste even the smallest dichroic shaving. Jewelry uses very little glass. You can make dozens of pendants from several scraps of glass. When you are on a budget, make pendants.

**Explore using float glass.** Years ago in Hawaii, my brother-in-law Chip and I learned to cut glass by practicing on piles of scrap float glass that a window company had given him. Before Bullseye developed fusing-compatible stained glass, artists painted and fired float glass. For ideas on using this inexpensive glass, read the 1970 classic *Kiln-Fired Glass* by Harriette Anderson. You can find her book on Amazon.

**Learn to fire visually.** You don't need a digital kiln or even a pyrometer to fuse glass. You can start out firing visually in a switch-operated kiln. Check the progress of the glass through a peephole and turn the kiln off when the glass is done. *Always wear green #3 firing safety glasses when firing glass visually.*

**Never underestimate the importance of a quality cutter.** Fuse glass on a budget, but don't scrimp on a glass cutter. Buy the best you can afford. I prefer the Toyo. My first one had a brass barrel and cut glass like butter.

One time an employee was cutting sheets of dichroic glass here at Paragon. She used a fairly good reservoir cutter, but the glass kept breaking erratically. I went home to get my brass-handled Toyo cutter, which easily sliced the dichroic. That's when I realized the importance of a quality glass cutter.

GPQ



*If you are on a budget, learn to fire glass in a switch-operated kiln such as this vintage Paragon.*

*Sheila Collins created this face tile from a beer bottle. She turned the bottle into frit, fired the tile and face separately into molds, then fused them together.*



*Hair spray enhanced this blue pendant with a silvery cast. Sometimes the best pieces are the result of mistakes.*

*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](mailto:ahoward@paragonweb.com) with questions for future columns. Sign up for his kiln newsletter at [www.paragonweb.com](http://www.paragonweb.com).*

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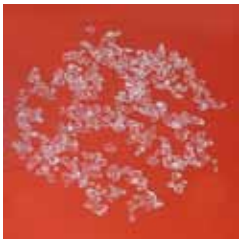
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