

GLASS PATTERNS

—• Q U A R T E R L Y™ •—

Winter 2019

Volume 35 • No. 4

Wildlife & Landscapes Issue



Lisa Vogt

Volume 35 No. 4

\$6.00 U.S. \$7.50 Canada



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18 Stained Glass
& Kiln Projects

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Michael Dupille is one of the early pioneers in the kiln formed art glass movement that began in the 1980s. He creates large scale pieces as murals or individual elements using fused crushed glass. He calls his style "Soft Surrealism" due to its representational imagery that incorporates imaginative twists to embellish the narrative. Find out more about Michael and his work at: www.skutt.com/Dupille



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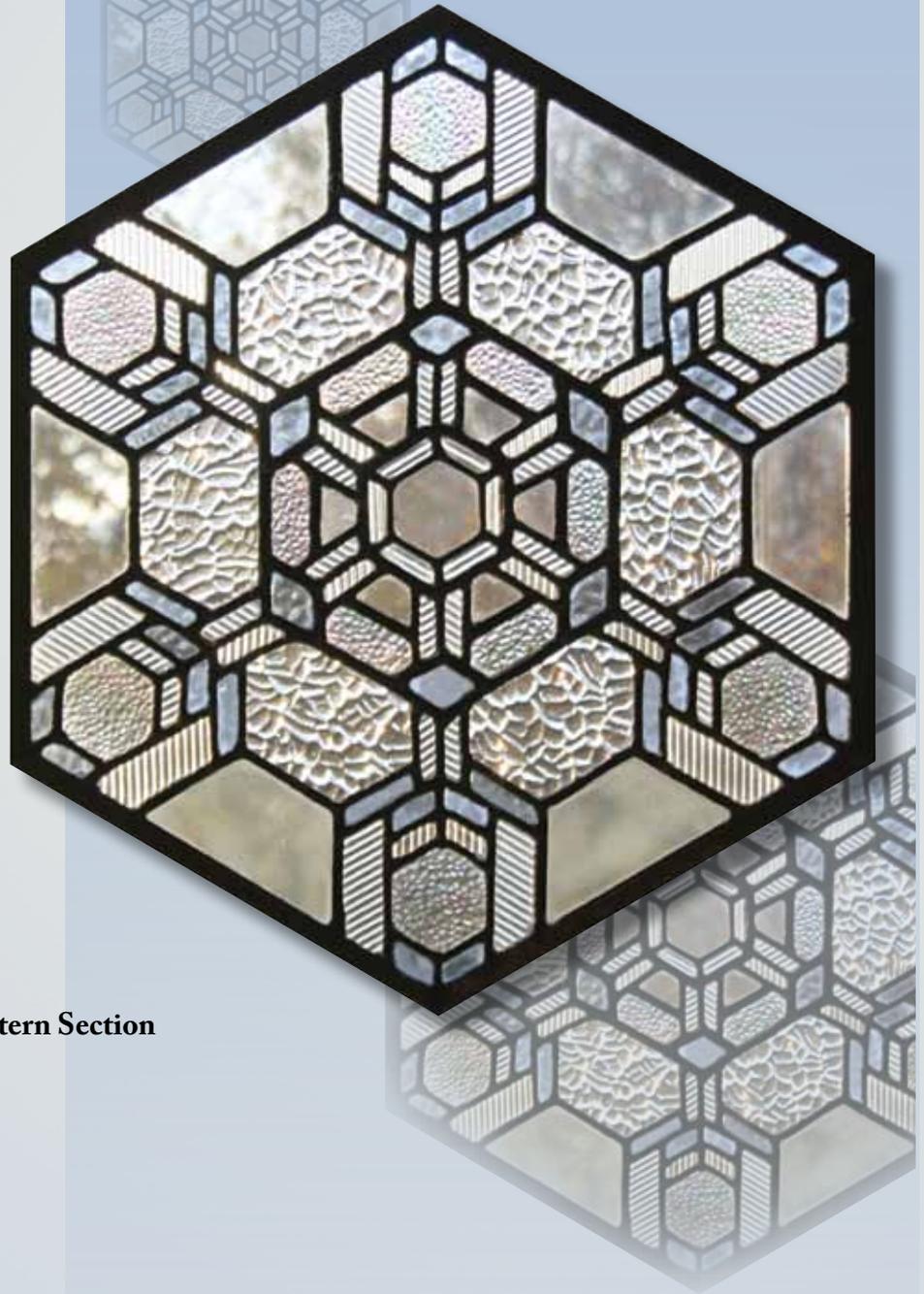
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Above: Prairie Style Snowflake by Chantal Paré.

On the Cover: Cardinal in a Pine Tree by Lisa Vogt.

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Above: Amaryllis by Chantal Paré

Upcoming Submission Deadlines

Summer 2020 *Garden, Beach, and Nostalgia*

Editorial February 20, 2020

Ad Closing April 20, 2020

Ad Materials April 30, 2020

Fall 2020 *Autum, Hollween, Holiday and Christmas Ornaments*

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3-D Winter Icicles

An Introduction to Stained Glass

Design, Demonstration, and Text by Lidia K. Anderson



I love the smell of the crisp air in winter, watching the snow fall and seeing the icicles dripping from the rooftop. Having spent my childhood in Sydney, Australia, my holidays were spent on the beach in the hottest time of the summer. Celebrating the holidays during the winter here in the United States was hard to get used to, but a welcome change. This is a very simple project, so make several different sizes and textures to create a winter wonderland decoration.

Glass

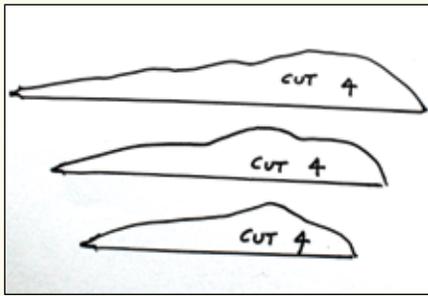
Clear Glass, Scrap
Textured Glass, Scrap

Tools and Materials

Black Marker 60/40 Solder
Temp-Controlled Soldering Iron
Flux 7/32" Silver-Backed Foil
Polishing Compound Jump Rings
Thin Transparent Fishing Line
Crystal Bead (optional)
Fishing Swivel Hooks (optional)
Jewelry Headpin (optional)

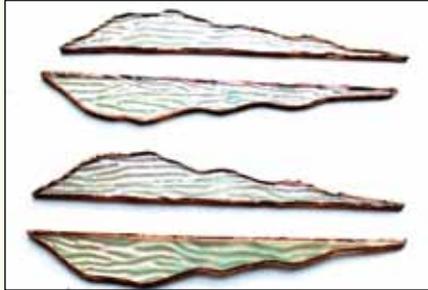
1

Cut out the pattern pieces and trace them onto the glass using a black marker.



2

Cut out the glass pieces, 4 sides per size, as many as you want to make.



Grind, wash, dry, foil, and burnish all of the pieces.

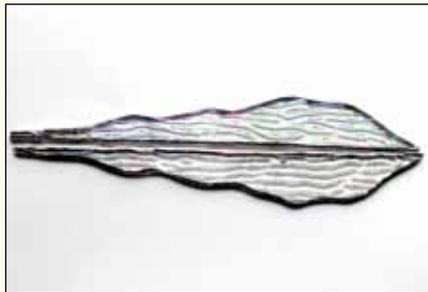
3

Flux all of the pieces, then tin-solder the fronts, backs, and edges.



4

Arrange 2 pieces with the straight sides together.



5

Flux and solder down the center seam, front and back.



Don't apply any beading, since the piece needs to remain flat.

6

Solder a jump ring to the icicle for hanging.



Open up a jump ring and attach it to the swivel hook (optional), close the jump ring with pliers, and solder it to the top point of the icicle where the two pieces of glass meet. If you plan to add a crystal drop to the icicle, solder an additional jump ring to the bottom point.

7

Line up another icicle piece at right angles to the base and tack-solder the piece at the top and bottom.



8

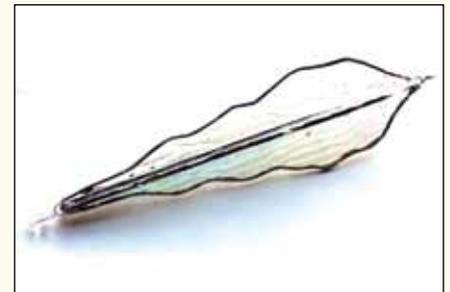
Turn the icicle over and repeat step 7 with the last icicle piece, then bead all of the edges.



Solder in between the seams for stability, then turn down the temperature of the soldering iron and apply a nice bead to the edges. Wash, dry, and polish your assembled piece.

9

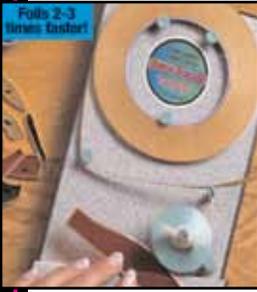
Use thin, transparent fishing line for hanging the icicle.



Add the fishing line to the swivel hook, or to the jump ring if not using the swivel, and tie a knot at your desired length. Add the crystal drop bead to the bottom with a jewelry headpin, cut to length, and secure the bead to the bottom jump ring. It should just dangle freely.

Now you're ready to display the icicles on your Christmas tree or hang several at different levels from the top of a window frame. I use a thin drapery tension rod inside the window frame that can be adjusted to any desired level. Happy Holidays. **GPO**

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

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

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

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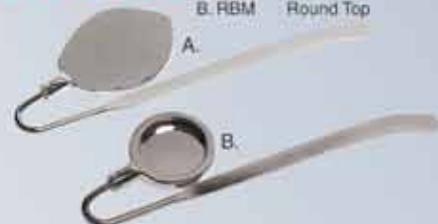


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| SJBS Small | 925S Small |

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- | | |
|----------------------------|--------------------------|
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| SHBL Large | GHBL Large |
| SHBM Medium | GHBM Medium |
| SHBS Small | GHBS Small |

Earring Bails



- | | |
|----------------------------|--------------------|
| LEAF EARRING BAILS | DESCRIPTION |
| ITEM# SEBS | SILVER PLATED |
| ITEM# GEBS | GOLD PLATED |
| HEART EARRING BAILS | DESCRIPTION |
| ITEM# SHBS | SILVER PLATED |
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 C. SPBL-L Leaves
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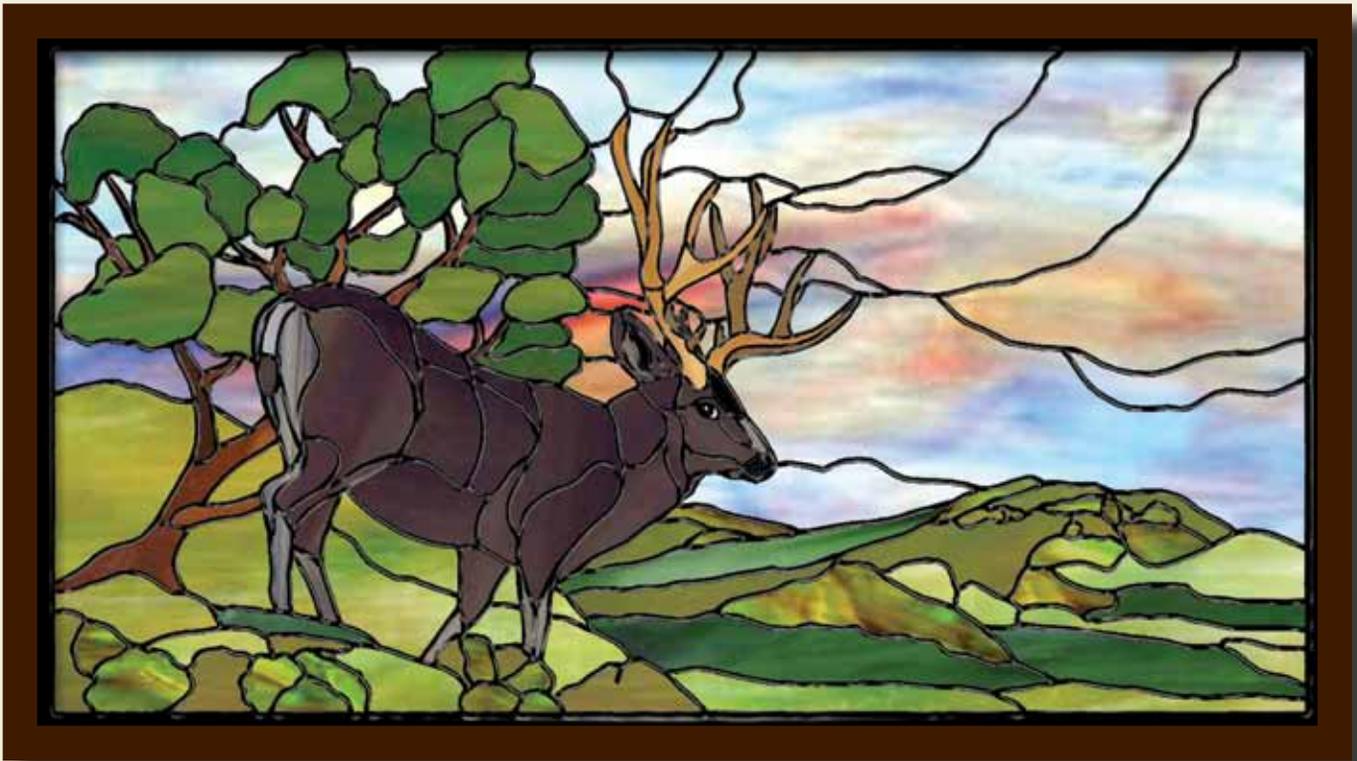
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Scenic Overlook

Design by Mary Harris, Text by Darlene Welch



Mule deer are among the most beloved and iconic wildlife of the American West. This 48" x 25" stained glass design by Mary Harris captures the handsome appearance of this deer as he surveys his surroundings. The sky in this rendering has been altered by slightly decreasing the number of separate glass pieces. When compared with Mary's original pattern, which is included in the pullout pattern section, it can give glass artists a chance to see how patterns can be customized to suit their own preferences.

Mary has been creating traditional and innovative stained glass art since 1979. Her true-to-life style has evolved through drawing and implementing custom patterns in stained glass and sandblasting. She has also created pattern books and discovered new ways to master brilliant artwork by merging traditional and hot glass techniques. The artist continues to create unique and stunning pieces that have been recognized for many years by the Association of Stained Glass Lamp Artists and in the Gallery of Excellence at the Las Vegas Glass Craft & Bead Expo. Visit www.harrisartglass.com to find out more about Mary and her work. **GPQ**

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- 503-L Light Opal/Dark Gray/Brown for Deer Legs, Rump, and Face, Scrap
- 145-SP Dark Amber/Opal/Crystal for Antlers, Scrap
- 77-L Light Brown/Yellow Green/Light Opal for Antlers, Scrap
- 78-L Medium Amber/Green/Light Opal/Crystal for Landscape, 2 Sq. Ft.
- 61-L Green/Brown/Light Opal/Crystal for Landscape, Scrap
- 245-L Medium Amber/True Green Streaky/Light Opal/Crystal for Landscape, Scrap
- WO-59 Dark Brown/Green/Opal/Crystal Wispy for Landscape, Scrap
- 155-LL Dark Purple/Green/Light Opal/Crystal Streaky for Tree Trunk, Scrap
- 23-L Light Green Light Opal/Copper Red for Tree Tops, 1 Sq. Ft.
- WO-112 Dark Green/Dark Amber/Opal Wispy for Tree Tops, 1 Sq. Ft.
- 238-D Dark Purple/Dark Blue/Dense Opal/Crystal for Sky, 3-1/2 Sq. Ft.

Tools and Materials

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

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Sweet Heart

Design, Fabrication, and Text by Leslie Gibbs

Photography by Jon Gibbs



The hummingbird, smallest of all birds, symbolizes love, beauty, hope, and the enjoyment of life. There are more than 325 unique species of hummingbirds. They are typically only three to five inches in size, although some species are no larger than a bumblebee. These fascinating birds also have an amazing ability that enables them to hover and fly backwards, or even upside down!

We are enchanted with this tiny messenger of joy, since the brilliant colors and iridescence of its feathers make the hummingbird the perfect subject for glass artists. Spread your wings, let your spirit soar, and celebrate life's sweet moments with the delight that this panel will bring you or someone you love.

Glass

Light Green Iridescent
for Wings, Back, and Top of Head, 3" x 5"

Cranberry Pink for Throat, 2" x 3"

Light Aquamarine Blue for Background, 4" x 4"

Mint Green Streaky for Chest, 3" x 5"

Coatings By Sandberg

Green/Pink Thin Dichroic for Feathered Wings, 3" x 7"

Tools and Materials

X-Acto® Knife Scissors

5/32" and 3/16" Silver-Backed Copper Foil

Masking Tape Black Patina

Kem-O-Pro® Polishing Wax

Cotton Swabs Toothpicks

Soft Cleaning and Polishing Cloths

1/4" and 1" Grinding Bits

Waterproof Marking Pen

Small Jump Rings for Hanging

Flux Flux Remover

Needle Nose Pliers Old Toothbrush

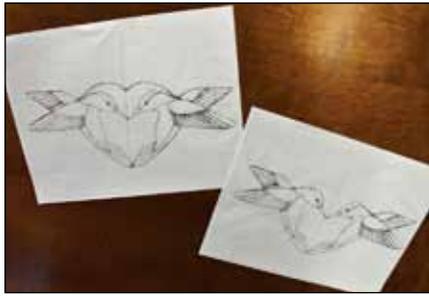
White Enamel Hobby Paint

Optional Materials

Crystal for Hanging Fine Steel Wool

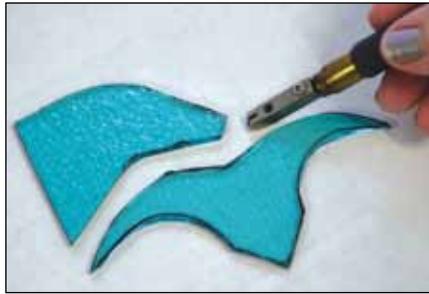
Beadlon® Supplemax™ Nylon Line 0.25 mm

1
Decide how large you want to fabricate the design and make two copies of the pattern.



Number each section of the design.

2
Cut out all sections of the glass.



For the feathers, you can use iridized glass if you don't want to use dichroic. If you do choose dichroic, however, remember to cut it on the back of the glass, not the treated side. With the thin dichroic, you can just lay the glass on top of the feather section, outline and number the feathers, then flip the glass over to cut. This will give you a precise cut and reduce the amount of grinding necessary.

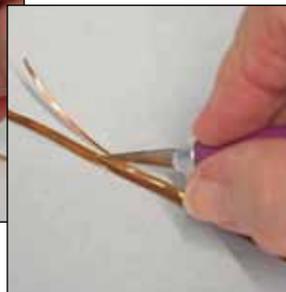
3
Grind the glass to fit the pattern.



When grinding dichroic glass you will want to protect it, since it scratches easily. I do this by having a clean grinder surface and covering the grinding surface with masking tape. Grind the rest of the glass sections normally, then clean the glass and set the pieces aside for foiling.

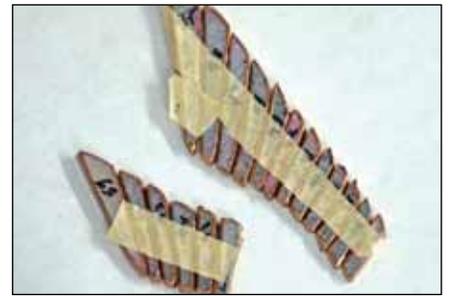


4
Foil each section of glass, trimming the width of the foil if necessary.



If you have chosen the thin dichroic for the feathers, use the smaller width of foil. Even with the smaller width, however, you will probably need to trim the foil with scissors and an X-Acto knife. You may hate me for this tedious job, but audio books, music, or Netflix can make this chore easier.

5
Secure the foiled wing and tail sections before soldering.



In order to secure the tiny feather sections and keep them from shifting during soldering, tape the wing and tail sections in place with masking tape. Once you have these sections tack soldered, remove the tape and finish soldering.

6
Finish-solder the panel and create raised solder dots for the tiny eyes.



7
Add the hanging rings.



Use needle nose pliers to hold the hanging rings in place while you solder. Attach two rings, one on either side of the back of the panel, where the wing meets the back of the bird's head.

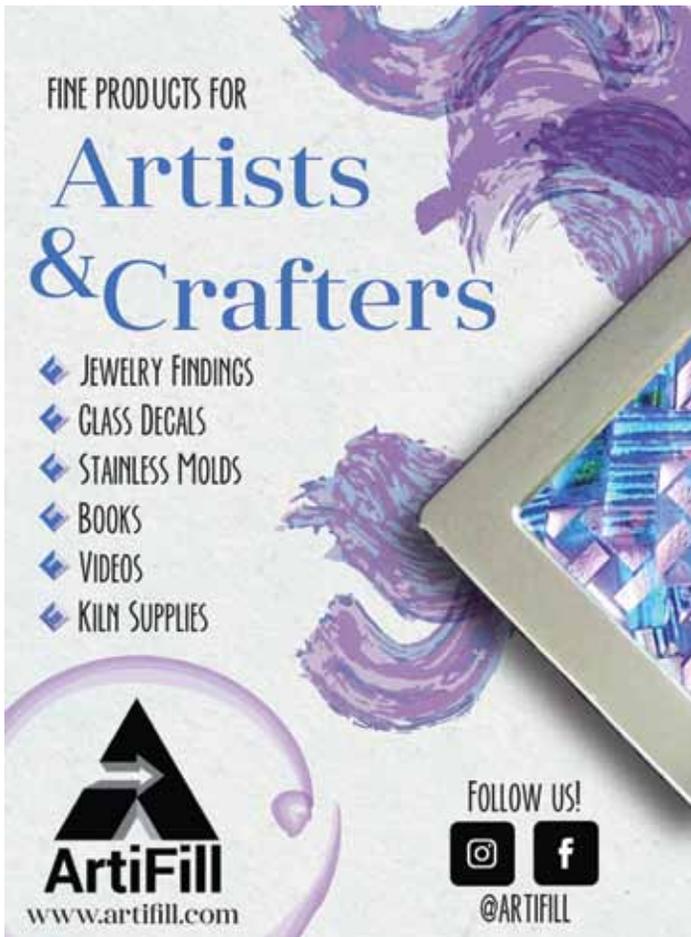
8
Clean the panel and apply the black patina.



Using flux remover, clean the panel on both sides, rinse, and let the panel dry. Use a cotton swab to apply black patina to both sides of the panel. Rinse off the glass when you are finished applying the patina.

9
Wax and polish the panel.





Using a clean, soft cloth, apply the polishing wax to one side of the panel and let it dry, then turn the panel over and apply wax to the other side. When the wax dries to a haze, gently buff the glass to a bright shine using another clean, soft cloth. You may need to use an old toothbrush to reach the dried polish in some sections.

Add a tiny dot of white hobby enamel to highlight the eyes of the hummingbirds.

10



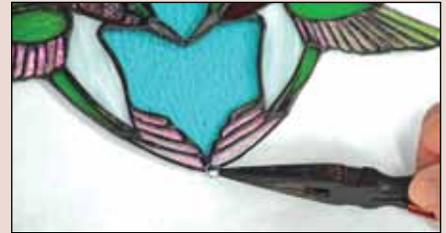
Stir the white hobby enamel with a toothpick until the color is blended. Using a toothpick, place a tiny drop of the white enamel onto the eyes on one side of the panel. Let the paint dry overnight and repeat the process on the other side. Now that you have completed this project, let the sun illuminate these sweet birds as you sit back and enjoy your finished artwork. **GPO**

Optional Sparkle

There is an “option” that you can choose to apply, just when you thought you were done. Add a bit more sparkle to these shimmering birds by suspending a crystal from the bottom of the panel. The crystal can be any shape and any color as long as it has an opening for stringing.

Optional Step 1

Add another hook.



Using fine steel wool, remove the patina from the back of the tail feathers where the two sets of feathers meet. Solder a small hanging ring centered where the tail feathers meet. Once again, apply patina where the new hook has been added, then clean up the patina.

Optional Step 2

Create a loop from the Supplemax flexible nylon line and suspend the crystal from the bottom of the panel.



How long a section of line is up to you! Tie a secure knot in the line, and this time, I promise, you have completed the project.



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

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



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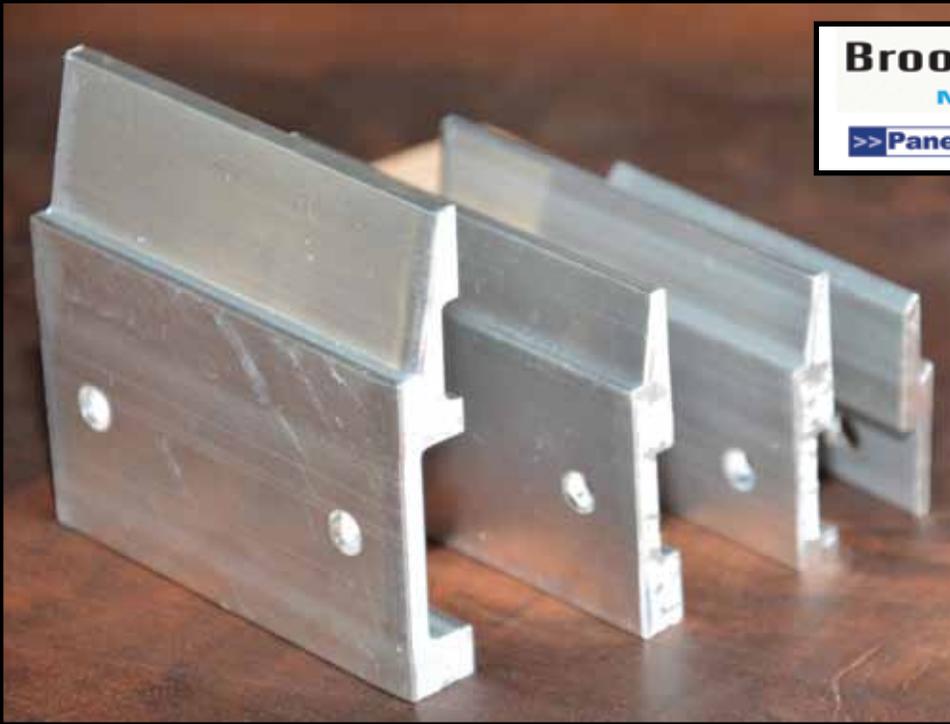
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Flying Duck

Design by Jean Beaulieu, Text by Darlene Welch



As bird watchers everywhere will tell you, there's nothing more amazing than seeing a bird in flight. Canadian artist Jean Beaulieu has perfectly captured that wonder in this 24" x 17-1/2" stained glass design. The panel is one of 12 superb patterns from his collection, *Beautiful Birds 1—Illustrated Designs of Elegant Winged Creatures*.

Included in this 28-page volume are patterns for a dove, swan, blue jay, rooster, geese, hummingbirds, and six other designs. A color photo of each finished panel is also included in the book. Visit www.jeanbeaulieu.com to check out more of the artist's pattern books as well as his greeting cards and acrylic frames. **GPQ**

Wissmach Glass Company

BLACK for Eye, Scrap

WO-112 Dark Green/Dark Amber/Opal Wispy for Head, Scrap

1-L Silver Yellow/Light Opal/Crystal for Beak, Scrap

71-L Dark Brown/Green/Light Blue/Light Opal/Crystal

for Neck and Back, Scrap

502-L Light Opal/Medium Gray/Brown for Breast and Wing, Scrap

503-L Light Opal/Dark Gray/Brown for Wing and Tail, 1 Sq. Ft.

118-LL Cobalt Blue/Opal/Crystal Streaky for Wing, Scrap

243-LL Dark Blue/Yellow Green Streaky

for Water and Landscape, 1/2 Sq. Ft.

WO-94 Medium Purple/Amber/Opal/Crystal Wispy for Sky, 2 Sq. Ft.

Tools and Materials

7/32" Copper Foil Flux Solder

Black Patina 1/2" Zinc U-Channel

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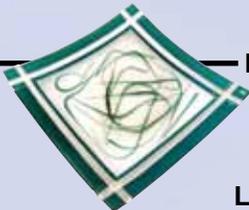
Rick Silas

The Art of Ice Glass
December 12



Dennis Brady

Vitrigraph
January 7



Lisa Vogt

Fused Glass Sculptures **New**
January 14



Tony Glander

Shaterglass
January 21



Joe Porcelli

Cutting Glass
January 28



Dennis Brady

Selling Your Work
Lecture
January 30



Rick Silas

Plant Pressing with Ice Glass
February 4



Tony Glander

Screenprinting
February 18



Richard La Londe

Liquid Glassline
Lecture
February 20



Dennis Brady

Screen Melt
February 25



Harish Dewani

Realistic Sandblasting
March 10



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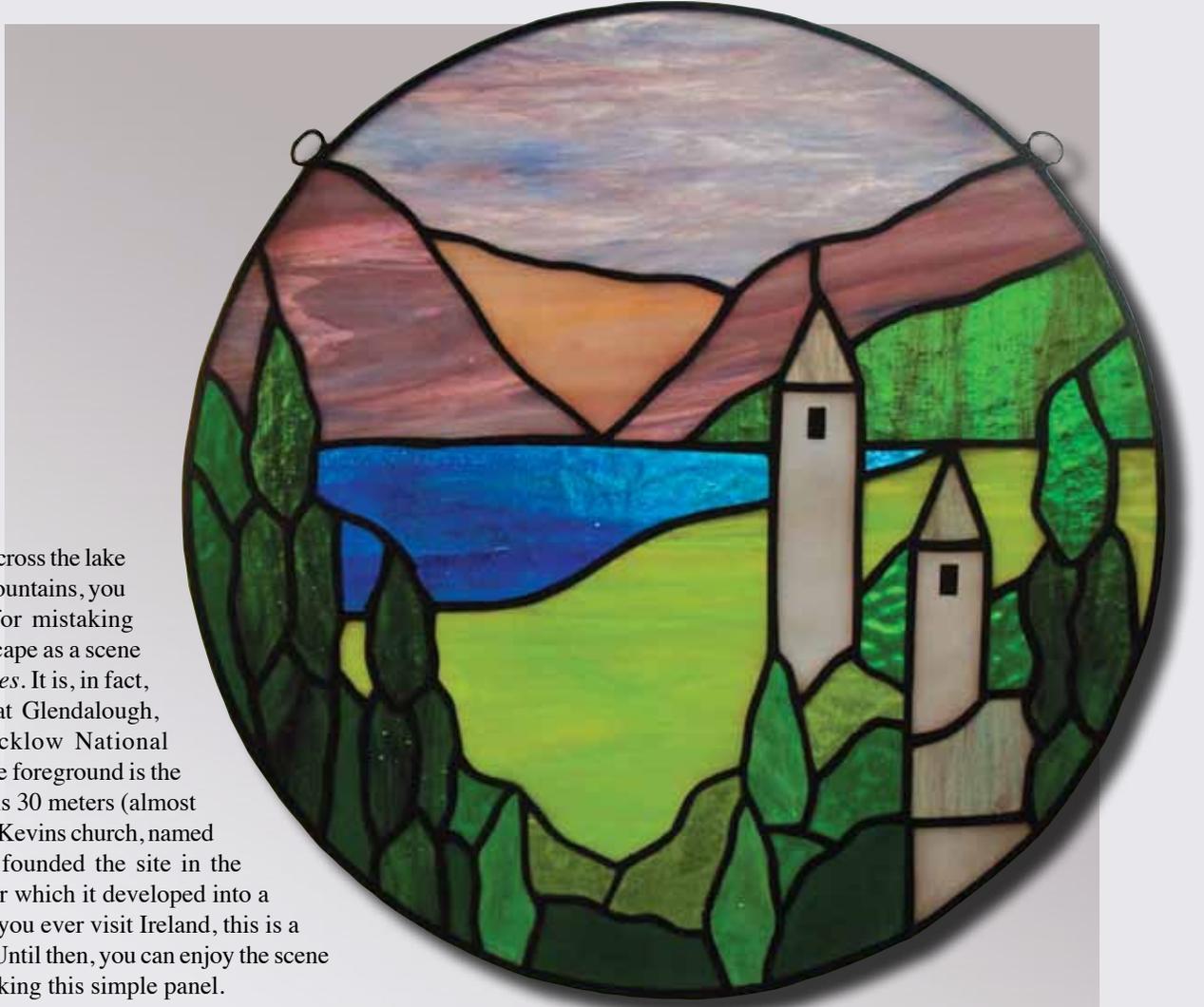
Glendalough

A Legendary Irish Landscape

Design, Fabrication, and Text by David Kennedy

Photography by Sharon Kennedy

As you gaze out across the lake to the distant mountains, you could be forgiven for mistaking this legendary landscape as a scene from *Game of Thrones*. It is, in fact, the monastic ruins at Glendalough, situated in the Wicklow National Park in Ireland. In the foreground is the round tower, which is 30 meters (almost 99 feet) high, and St. Kevins church, named after the saint who founded the site in the late 6th century, after which it developed into a major settlement. If you ever visit Ireland, this is a must-see attraction. Until then, you can enjoy the scene depicted here by making this simple panel.



Wissmach Glass Co.

85-D Medium Purple/Sky Blue Dense Opal/Crystal for Sky and Mountains, 1-1/2 Sq. Ft.

145-D Dark Amber/Dense Opal/Crystal for Mountain Center, Scrap

WO-704 Medium Green/Brown/White Opal Wisspy for Trees and Tree Line 1/2 Sq. Ft.

WO-707 Light Blue/Dark Blue/White Opal Wisspy for Lake, 1/2 Sq. Ft.

565-L Gray Light Opal/Dark Gray for Towers and Church, Scrap

WO-152 Yellow Green/Dark Green Wisspy for Grassland, 1/2 Sq. Ft.

EM318 Medium Olive for Foliage, Scrap

EM343 Green for Foliage, Scrap

EM161 Light Olive for Foliage, Scrap

570-L Dark Gray/Light Opal for Tower and Church Roofs, Scrap

343 Medium Green Cathedral for Foreground Trees, Scrap

Tools and Materials

7/32" Copper Foil Burnishing Tool

50/50 Solder 60/40 Solder

4x4 C- or U-Channel Lead Came

3/4" Grinding Bit Water Soluble Flux

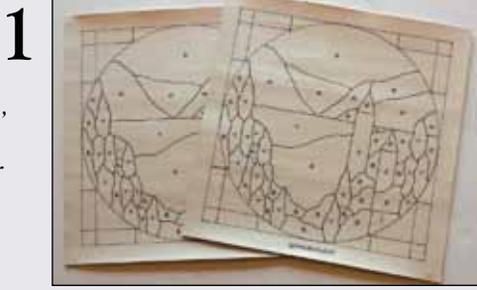
Tinned Copper Wire 0.5 mm Chain

Fine-Tipped Permanent Marker Pen

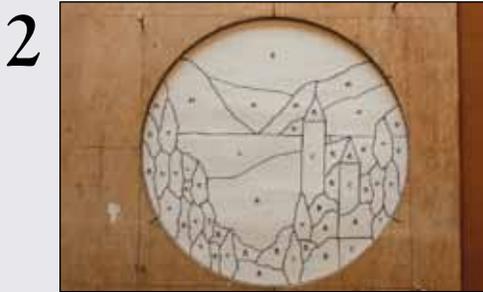
Small Paintbrush Stiff Brush

Dish Detergent Black Patina

Start by making two copies of the pattern, one for using as a template and one for cutting out the glass pieces.



Prepare a jig for building the panel.



Mine is approximately 12" in diameter. The finished panel will be hung in a window, and the jig will produce a nice, neat finish.

Cut the sky from the Medium Purple/Sky Blue Opal glass.



I have taken a piece of Wissmach 85-D Medium Purple/Sky Blue Opal and cut the sky from it using the lightest part of the sheet. I later used the darkest part of the sheet to cut the mountain pieces on the right and left.

Add the center piece for the mountains using a scrap of the Dark Amber/Dense Opal/Crystal.



Cut out the glass pieces for the lake and the background tree line.



Cut the water pieces using the Light Blue/Dark Blue/White Opal Wisspy and the tree line pieces using the Medium Green/Brown/White Opal Wisspy.

6

Add a tree on either side of the panel using the Medium Green/Brown/White Opal Wisspy.



This will help to build up the foreground of the scene.

7

Place the glass pieces for the tower and church and the surrounding foliage.



Using the Light Gray and Dark Gray, cut the tower and church on the right side of the panel. Add the foliage surrounding the church using the various shades of green.

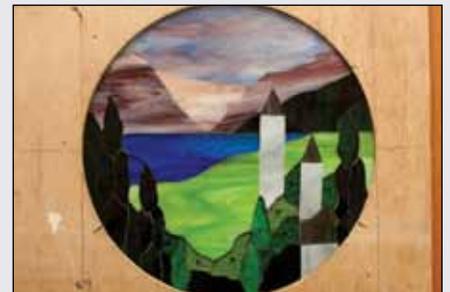
8

Cut and place pieces of the Yellow Green/Dark Green glass for the grasslands.



Finish the trees and foliage on the left side of the foreground.

9



I have used three different shades of green, all from English muffle glass.

10

Foil all of the glass pieces.



Once all of the pieces are cut, foiling can commence. Remove the pieces from the template, one at a time, apply the foil, and replace the pieces, making any necessary adjustments as you proceed. There is no need to foil the glass that will be on the outside edge of the panel, since the lead came will cover that.

11

Make sure the foil is well burnished onto the glass edges.



I find that a putty knife is excellent for this procedure. Replace the pieces in the jig and make any adjustments as you proceed.

12

Flux and solder the panel, front and back.



When all of the pieces have been foiled, apply flux to the seams and solder them flat using 50/50 solder. Remove the panel from the jig and repeat the fluxing and soldering process on the reverse side.

13

Frame the panel with C- or U-channel lead came.



Stretch a section of C- or U-channel lead came and cut a piece approximately 39" for a 12"-diameter panel. This can be eased around the outside edge to provide a nice, neat finish.

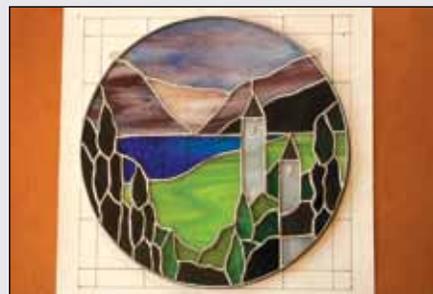
14

Complete the soldering, reapply flux to the seams, and bead-solder the panel on both sides using 60/40 solder.



15

Add hanging hooks for the panel and windows for the towers.



Attach hooks for hanging the panel. To create windows for the two towers, make simple overlays using a small piece of 7/32" copper foil.

16

Once all of the soldering is complete, clean the panel using a tiny amount of dish detergent and warm water.



A stiff brush will help to remove all of the flux and solder residues.

17

Apply the black patina.



Using a small paintbrush, apply the patina to the seams, leave for a couple of hours, then give the panel a final clean and polish. The completed panel can now be hung in a window of your choice.

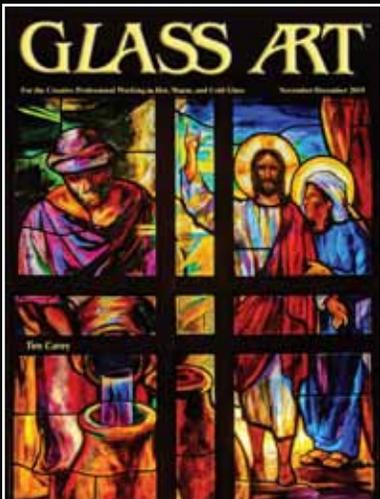
GPO

David Kennedy began his stained glass journey in 1984. After mastering the basics, he moved on to art glass, which has now become his passion. The artist doesn't use plating or painting techniques, preferring instead to take his inspiration from the glass itself.



David is now in the process of publishing his original designs on Etsy.com with the help of his wife Sharon. They live on the Hook Peninsula, located in a rural historic southeastern section of Ireland, where he produces panels and designs in his own unique style.

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The Morton System

Funky Frannie

Design, Fabrication, and Text by Pat Chase

Photography by Emily Grant

Ever since I discovered stained glass, I have gotten a lot of pleasure from creating original designs, beginning with lamps and windows that included real seashells. I drew my first angel for Christmas in 1999, since I couldn't find a suitable pattern at the time. I didn't do any drawing as a rule, but Grace was so easy. The positive response that I received encouraged me to continue designing more angels. When the time comes to begin a new project, I use assorted glass from my supply and begin to cut out the pieces with my preferred Toyo 600 pistol grip glass cutter.

Even though I am now a professional artist creating windows, lamps, and mosaics, as well as specialty work including commissioned art for churches, I still get a thrill from gifting these angels to friends and family. I hope you enjoy making Frannie as much as I did.



Glass

Assorted Desired Glass Colors and Textures, Scrap

Tools and Materials

Black Sharpie® Marker

Clear Contact Paper

UHU Tac Breaking Pliers

Glass Cutter 7/32" Copper Foil

18- or 20-Gauge Wire

Wrapped Glass Nugget

Super Glue

Trace the pattern pieces onto the glass with a Sharpie marker, then score the lines with a glass cutter.



I work on a light box with 2 patterns and a Sharpie to draw on my glass pieces. On one pattern I put clear contact paper to use with UHU tac, a product that is used to hang posters and similar items. It's reusable, and only a small amount is needed to stick the glass pieces in place. This works better for me than using pushpins.

Use breaking pliers to separate the individual glass pieces.



Grind all of the pieces to ensure a better fit.



Assemble the glass pieces on the pattern that is covered with contact paper.



Foil each piece, then tack-solder the pieces together and finish-solder the panel.



I use a thinner foil on all of the inside seams and a wider one for outside edges. I then trim any overlaps with an X-Acto knife to give a clean soldering line.

Tack-solder and solder as normal. For the bird and wing I put foil on the connection points and solder after completing the back side. The bird on the head and the flower are attached last.

The flower that Frannie is holding is created from twisted copper wire. If possible, use 18-gauge wire to form the flower, but 20-gauge will also work. A wrapped glass nugget is used for the center. I added a drop of solder to the petals and the attached nugget. I actually use Super Glue to stick it to the finished piece at the hands. Finally, I add a patinated solder drop for the bird's eye.

Clean the panel, apply black patina to the solder lines, and polish the piece.



If you want to hang your panel, twist two 3" to 4" lengths of wire into loops and solder them onto the back of the panel at the seams while you are working on the back side of the panel. **GPQ**

Pat Chase has been creating stained glass art since 1997. After learning the basics, she started making windows and lamps, incorporating real seashells into her original designs. According to Pat, "My first pieces were not that expert, so I used solder drops to fill in the gaps. That seemed to go along with my shell and water designs. After I made a number of pieces, selling some and giving others as gifts, I discovered that it was fun!"

Pat made her first angel pattern, Grace, for Christmas 1999. Her friends at the studio immediately wanted the pattern, which was the beginning of her angel design collections. With the help and guidance of CKE Publications, Angel Companions was released in July 2007 through worldwide distribution. She recently self-published her second pattern book, Angel Companions II.

The artist and Stephen, her husband of almost 50 years, enjoy their church, family, friends, and Bluegrass music from their home in Port Hadlock, Washington. Pat feels that all of this has been possible thanks to God and His angels. Her wish for others is to enjoy her designs and pass on the love. Visit www.angelglassart.com to learn more about Pat and her designs.



Swallowtail

Design by Justin Behnke, Fabrication and Text by Cindy Dow Savary

Photography by Cindy Dow Savary, Gerry L. Savary, and Susan Walker Bowen



One of my favorite artists is Justin Behnke. *Swallowtail* is my third time using one of his patterns. After careful consideration, I am modeling this 17-1/2"-diameter panel after the female Eastern Tiger Swallowtail. In nature, the females of the species seem to always take a backseat when it comes to color, but not so in this case. Male Eastern Tiger Swallowtails are always yellow with black stripes. Females, on the other hand, can be yellow with black stripes and a splash of blue on their tails. They can also be solid black with a splash of blue on their tails.

Starting a new project is always exciting. Before I start using any pattern, I get out my crayons and colored pencils and am brought back to some of my best childhood memories. A few pattern designers supply you with a color legend or colorized picture. However,

part of the fun is doing the research and using your imagination. Be yourself and be unique.

Coloring your pattern is helpful for a variety of reasons, one of which is that it helps you in picking out your glass. It is also an invaluable tool for visualizing the end results. You will be surprised by how your colored pattern will resemble your final panel.

Justin supplies two copies of his patterns that are already numbered. In addition to the numbers for the pattern pieces, you may want to mark for grain direction on the pattern, depending on the glass you use. There are many methods for separating the pattern pieces. For this project, I laminated one of the copies and used foil pattern scissors to cut out the separate pieces. The other copy will be used for the layout.

Wissmach Glass Company

310CLA Dark Amber Classic

for Rope Border and Butterfly Wings, 1/4 Sq. Ft.

EM4932 Medium Yellow Green

for Leaves, 1/2 Sq. Ft. Additional Glass

Dark Orange for Center of Flower, Scrap

Spectrum Glass

OGT60768 Orange Inferno Pearl Opal, 1/2 Sq. Ft.

Additional Glass

Avocado Green for Flower Stems, Scrap

Black for Butterfly Wings, Scrap

Bright Yellow Opal for Butterfly Wings, Scrap

Medium Blue Hammered

for Butterfly Wings and Body, Scrap

White/Dark Blue for Outer Border, Sq. Ft.

Firelight White Opal for Rope Border, 1/4 Sq. Ft.

Clear Iridescent Rough Rolled

for Background, 3/4 Sq. Ft.

Tools and Materials

Foil Pattern Scissors Toyo Pistol Grip Cutter

Grozing Pliers Running Pliers

Grinder Petroleum Jelly Pushpins

Permanent Markers Rubbing Alcohol

Paper Towels X-Acto® Knife

13/64" Black-Backed Copper Foil

Aanraku Foil Burnish Roller Nokorode Paste Flux

60/40 Solder Hakko® FX-601 Soldering Iron

Safety Glasses Kwik-Clean® Flux & Patina Cleaner

Cotton Swabs Nitrile Gloves JAX® Pewter Black

Novacan Black Patina Cotton Rounds

Liva Stained Glass Polish Hammer

Horseshoe Nails Lead Nipper (Dyke)

1/4" Lead U-Came

1



Glue the pattern pieces to the glass.

2



Score as close to the pattern as possible.

3



Use running and grozing pliers, as needed, to separate and remove excess glass.

4



Use a grinder to smooth any rough edges.

For some pieces, I like to use a grinder cookie.

5



Place the pieces of glass on the layout pattern copy.

Make sure to dry the laminated pattern pieces so that you can reuse them later.

Colored Pattern



Side by Side Comparison



6

Before foiling, clean each piece with rubbing alcohol and dry.



7

Apply the foil to all of the glass pieces.



I use 13/64" foil and like to foil by hand. Put the glass to the foil, making sure it is centered, then wrap the entire piece. Try not to overlap. Use your fingers to smooth the foil on each side and burnish the foil with either a fid or foil roller until it is smooth on both sides of the glass and on the edge.

8

Flux and solder the pieces.



Apply flux to the copper foil lines. Note that too much flux can cause the solder to splatter and create bubbles in your solder seam. Tack-solder each joint with a small drop of solder before running a smooth raised bead of solder on the front and back.

9

Thoroughly clean the project using Kwik-Clean to remove any residual flux, then apply the Novocan black patina.



Be sure to wear gloves. After the patina has been applied, clean the piece again with Kwik-Clean.

10

Polish the panel.



Add a thin layer of Liva Stained Glass Polish and let it dry. Wipe off the polish using cotton rounds. For those hard to get places, use cotton swabs.

11

Frame the panel using 1/4" lead U-came.



The came will need to be stretched. Your local glass store will be able to do this for you. You can also use a vise. Use horseshoe nails to secure the U-came to the panel.

12

Gently tap the U-came with the hard end of the hammer until the glass is secure in the channel.



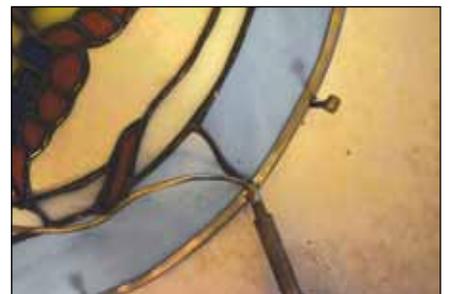
13

Use a lead nipper to cut the lead U-came where the ends meet.



14

Apply flux where the soldered lines meet the U-came and solder.



Be careful not to hold the soldering iron in place for too long, because that will cause the U-came to melt. Add JAX Pewter Black to the U-came, then clean the panel with Kwik-Clean.

15

Add jump rings at the joints where the solder lines meet the U-came for hanging the panel.



GPO



Cindy Dow Savary has always had a passion for art and has been a crafter all of her life. After retiring in August 2017, Cindy took her first stained glass class in April 2018, and by June 2019, her work was exhibited at the City of Round Rock Texas Library. From that showing, Cindy received her first commission to repair and enlarge a piece that would become part of a new Airbnb called Annabella's Studio. The client wanted to honor the memory of her friend, the original artist.

Cindy has continued to create panels to honor the memories of loved ones including her mother, who died in 1959. With the help of a friend, Michal Adams, Cindy was able to create a panel after one of her mom's oil paintings, Zinnias in a Vase.

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Prairie Style Snowflake

Design, Fabrication, and Text by Chantal Paré

“I wish I could press snowflakes in a book like flowers.”

James Schuyler



Snowflakes come in myriad shapes that have intrigued the scientists who classify them. The particular snowflake in this project is inspired by the stellar, regular plane crystal snowflake configuration. I have added a hint of Frank Lloyd Wright prairie-style angularity as an unexpected twist.

I chose to make this project in lead came in order to play with a variety of lead line widths. Lead came is always a good choice for geometric projects when seeking a more traditional or architectural look.

Stained glass pieces using only clear, textured glass are always enthusiastically appreciated by viewers, since their calm restraint fits with every decor and every taste. They also tend not to break the craftsperson's bank! Wissmach's Aerolite provides a rigid, disciplined linearity, and the Figure C textured glass provides a very strong, frost-like counterpoint. I did use the very subtle Pale Blue English Muffle color and some iridescent Dew Drop glass for a hint of cool sparkle.

Wissmach Glass Co.

EMx118 Pale Blue English Muffle, 1 Sq. Ft.

Dew Drop-01 Iridescent, 1 Sq. Ft.

Figure C 01 Textured 1 Sq. Ft.

Aerolite-01, 1 Sq. Ft.

Additional Glass

3 mm Clear Float Glass, 1 Sq. Ft.

Tools and Materials

H Flat or Round Lead Came, 3/16" or less

Electric Grinder with 3/4" Medium Grit Head

Carbide Wheel Glass Cutter

Glass Cutting Pliers Claw Hammer

Soft Mallet Wood Saw Light Box

Small Wood Pieces Metal File

Masking Tape 14-Gauge Pretinned Copper Wire

Window Putty Lead Came 1/2" Zinc U-Came

60/40 Solder Soldering Flux Burnishing Brush

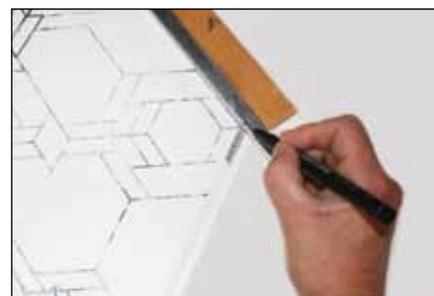
Whiting (Calcium Carbonate) Tin Cutters Box

Came Miter Saw City Head Size 5 Horseshoe Nails

Masking Tape or Electrical Tape

4

Fabricate a frame with the zinc U-came using the pattern and jig as a guide.



Use a marker to indicate the cut lines.

5

Set your miter saw for a 30-degree angle and cut 6 pieces of frame, one for each side of the project.



Smooth each cut with a metal file.

6

Starting in one of the upper corners, lead the project all the way down to the open side of the jig.



Cut the lead pieces and abut against the corresponding glass pieces following the paper pattern.

Tip 1: Straight came is important with a geometric pattern. To this end, you can stretch your came or gently hammer it into shape with a soft mallet.

Tip 2: Be sure that the glass is inserted inside the heart of the came with the vertical wall at its core. You can use the point of a horseshoe nail to lift the glass.

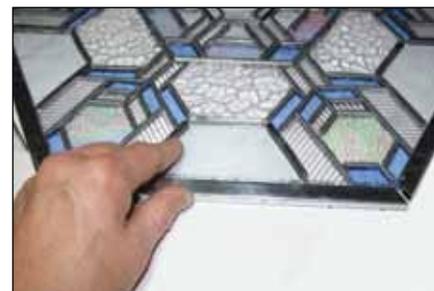
Tip 3: After you insert a piece, push it gently with a soft mallet for a tight fit. Visually check the lead strips for any small glass pieces that are slipping out of the came heart in the vicinity of the mallet's impact.

Tip 4: If a piece doesn't fit perfectly, grind away any excess glass with an electric grinder.

Tip 5: Scratch a line on the lead came to mark where it needs to be cut.

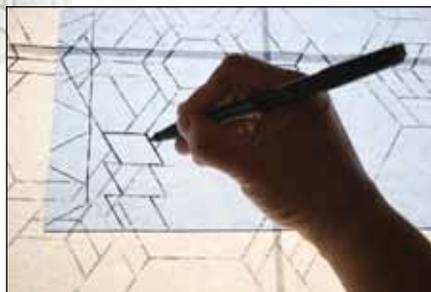
7

Slip on the last segment of zinc came to complete the frame.



1

Print a copy of the pattern and trace each piece onto the glass, excluding the black line area itself.



Using a light box helps with the process. Except for the center piece, each piece is repeated six times around the motif. Use this knowledge to speed up the tracing process.

2

Score the glass just on the marked lines with a carbide wheel glass cutter.



Break until all of your pieces are cut out.

3

Create a jig around your paper pattern for 5 of the hexagon's 6 sides with small wood pieces.



Meticulously follow the outside edge.

After you have leaded your way to the bottom of the project, remove the two pieces of the jig on both sides of the bottom segment of the frame and hold these two sides in place with horseshoe nails. Stretch open the zinc U-came in the last frame segment by zig-zagging along the inside with a fid or by using pliers. Slip on the last piece of the frame and secure with horseshoe nails.

8

Using masking tape as resist, solder the gaps between the frame pieces.



9

Solder the outer lead lines to the zinc frame.



With a flux brush dipped in a small amount of flux, daub the zinc and immediately melt some solder with the iron tip to form a small bead. Let cool for 30 seconds and solder a similar solder bead on the lead line directly across from it. Allow to cool, then solder a bridge between the two beads.

10

Solder every lead came joint.



Use a light touch with the iron so as not to melt the came down. When all of the joints have been soldered, remove the project from the wooden jig, turn the project over, and solder the other side as you did on the first side.

11

Bend some pretinned 14-gauge copper wire to form hooks and solder them into two of the joints in the frame.



Depending on which joints you select, the snowflake will be displayed either with a pointy end up or a flat top.

12

Examine the outside of the frame and solder any gaps in the frame corners.



13

Spread some window putty around and push under the came with your fingers on both sides of the project.



14

Apply whiting to the lead.



Patina the lead came and joints by generously sprinkling whiting (calcium carbonate) and brushing vigorously with a burnishing brush until the lead is a beautiful dark gray.

15

Remove any excess putty with a fid.



16

Wash with dish soap and good water flow, and thoroughly dry the snowflake.



When you're done, hang it in your favorite window. **GPO**

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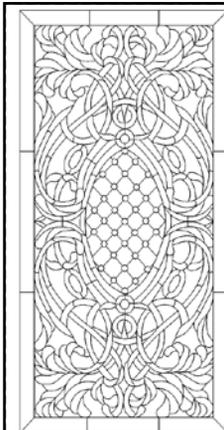
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Orchids

Design by Terra Parma, Text by Darlene Welch

Orchids form a diverse and widespread family of flowering plants, with blooms that are colorful and fragrant. Terra Parma celebrates their beauty with this 6" x 9-1/4" free-form stained glass suncatcher from her book, *New Floral Images*.

This collection of florals published by Stained Glass Images includes nine full-size patterns that represent a wealth of subjects including a cottage window box, morning glory wreath, rose arch, bearded iris and orchid suncatchers, a tropical sunset, and a hummingbird among lupine plants. These designs are waiting for you to turn them into beautiful stained glass projects that will add a special touch to any decor. **GPO**



Wissmach Glass Company

WO-701 Medium Purple/Dark Purple/White Opal Wisspy for Flower Petals, 1/2 Sq. Ft.

WO-140 Medium Purple/Opal/Crystal Wisspy for Flower Centers, Scrap

1-L Silver Yellow/Opal/Crystal Wisspy for Flower Centers, Scrap

23-L Light Green Light Opal/Copper Red for Leaves and Stem, 1/2 Sq. Ft.

Tools and Materials

7/32" Copper Foil Flux Solder

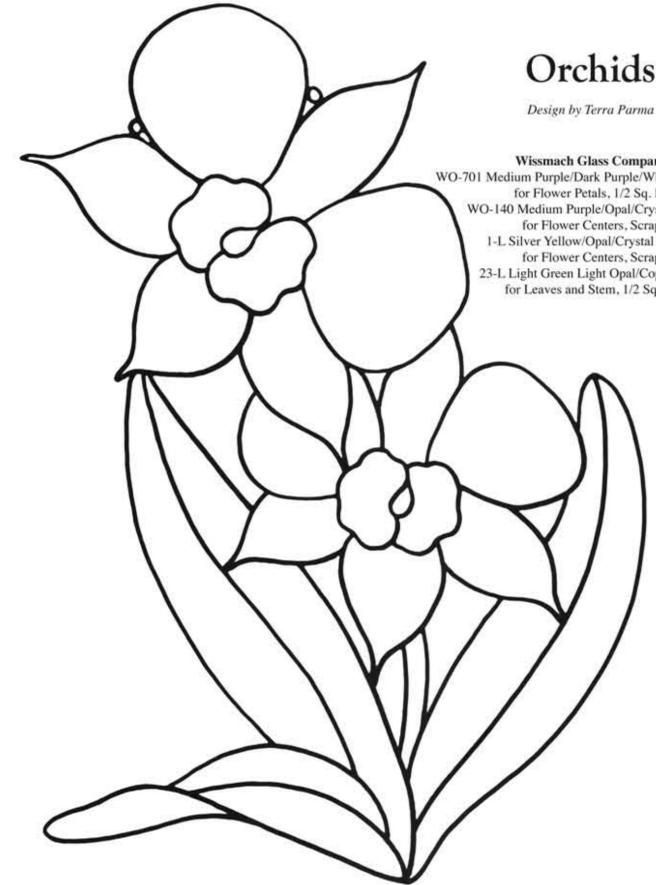
Black Patina 1/4" Lead U-Channel

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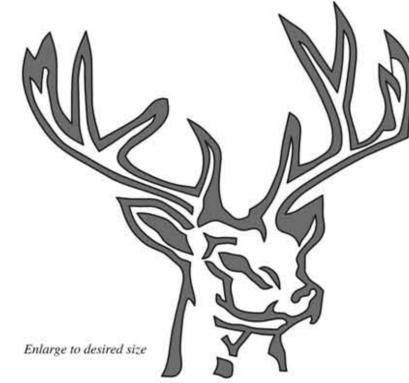
Orchids

Design by Terra Parma

Wissmach Glass Company
WO-701 Medium Purple/Dark Purple/White Opal Wissy
for Flower Petals, 1/2 Sq. Ft.
WO-140 Medium Purple/Opal/Crystal Wissy
for Flower Centers, Scrap
1-L Silver Yellow/Opal/Crystal Wissy
for Flower Centers, Scrap
23-L Light Green Light Opal/Copper Red
for Leaves and Stem, 1/2 Sq. Ft.



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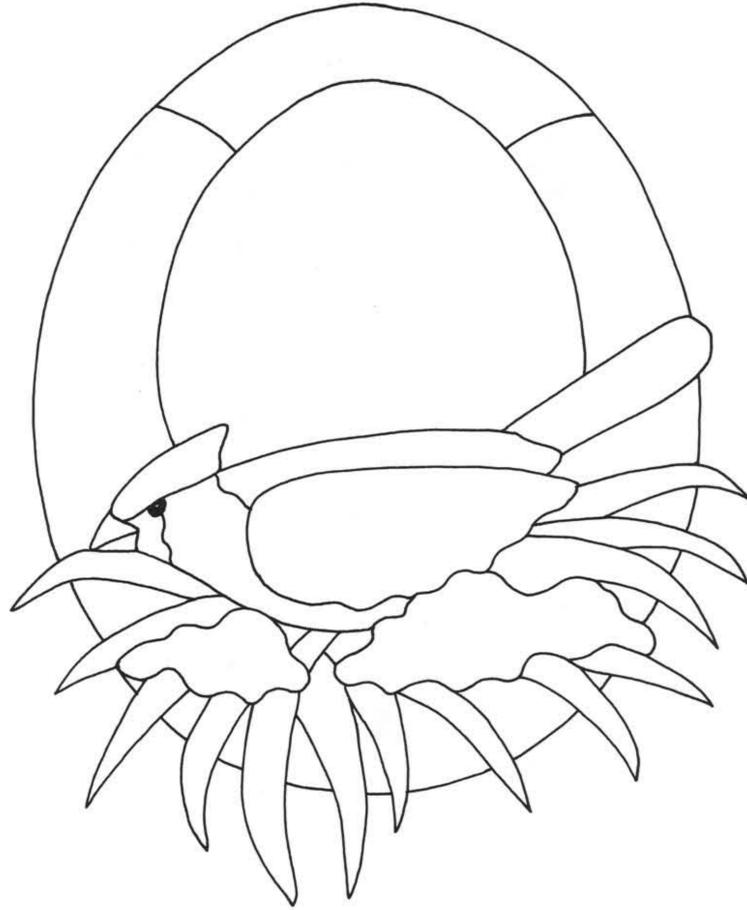


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Embossed Glass
Choosing Your Own Drawing
to Create Personalized Glass Art

Design by Dennis Brady

96 COE Glass
Clear Glass, 12" x 12"
Amber Glass, 12" x 12"



Cardinal in A Pine Tree

Design by Lisa Vogt

96 COE Glass
Clear for Base, 1 Sq. Ft.
Sky Blue for Sky, 1 Sq. Ft.
Flame for Cardinal, Scrap
Fern Green for Pine Tree, Scrap
Marigold for Bird Beak, Scrap
Medium White Frit for Snow
Coatings By Sandberg
Rainbow 1 on White Dichroic Frit

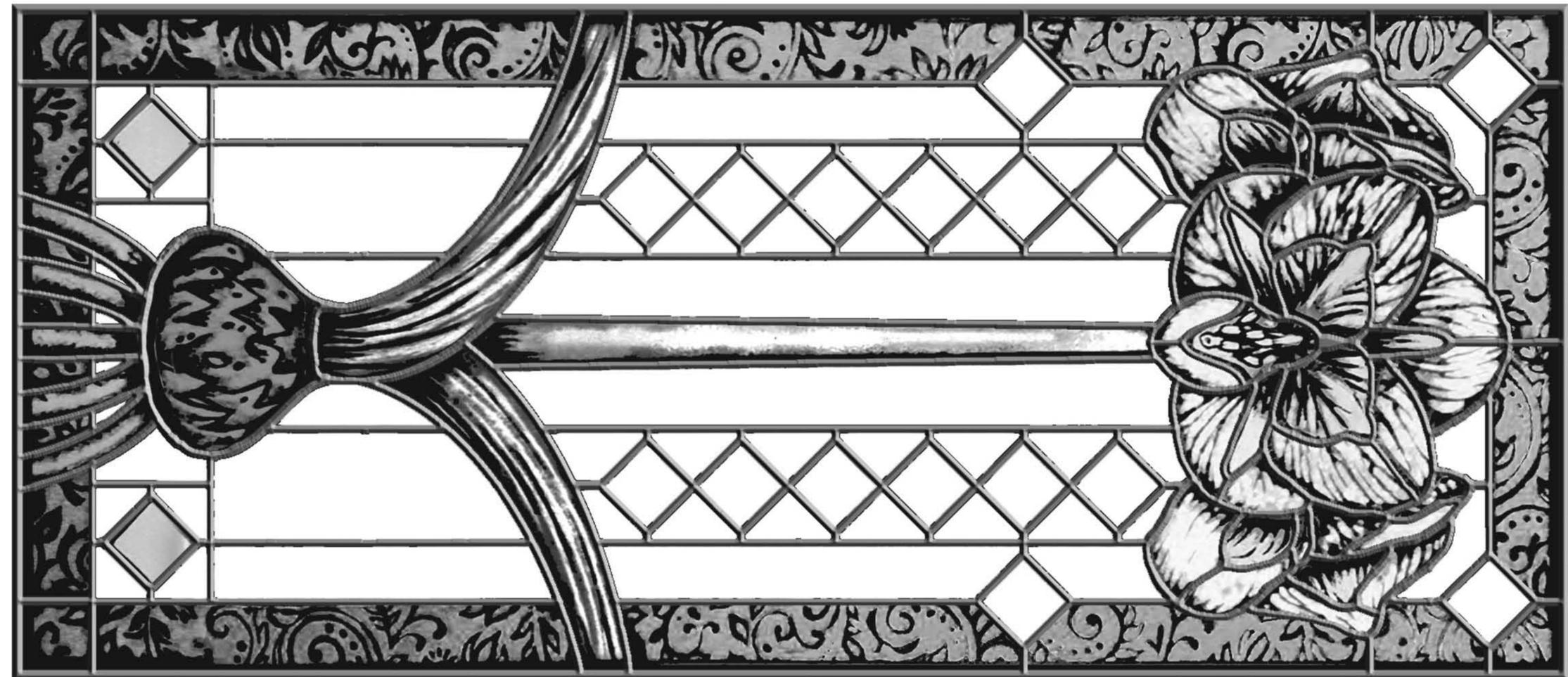


Funky Frannie

Design by Pat Chase

Glass
Assorted Desired Glass Colors
and Textures, Scrap

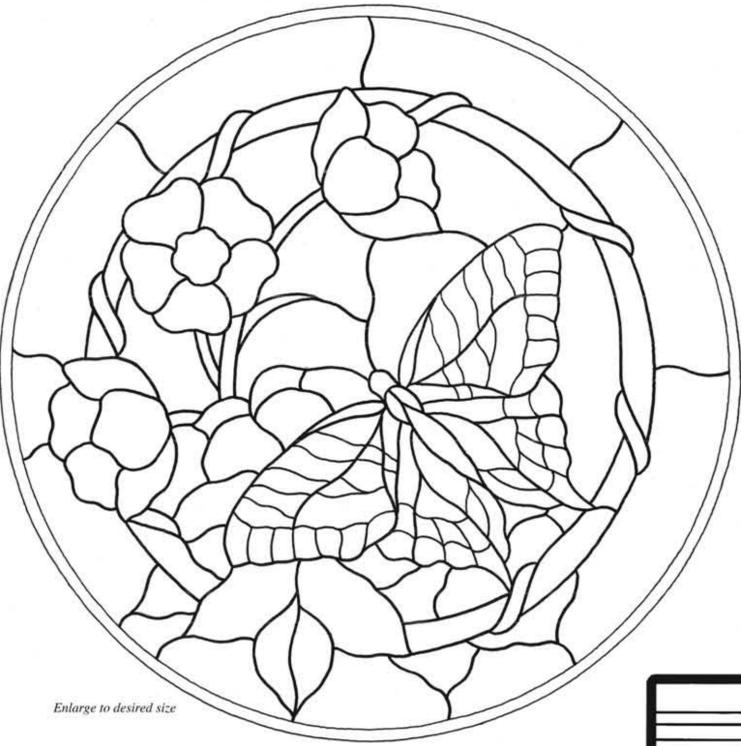
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Amaryllis

Design by Chantal Part

Wissmach Glass Co.
18 H Light Orange Hammered
for Flowers and Bottom Inner Border, 1 Sq. Ft.
EM4931 Dark Copper Blue English Murfle
for Outer Border, 1-1/2 Sq. Ft.
DR319 Dark Yellow Green Double Rolled
for Stem, Leaves, and Top Inner Border, 2 Sq. Ft.
Aerolite-01 Clear Aerolite for Bottom Inner Border, Scrap
Spectrum Glass
110.8A Medium Amber Antique® for Background, Scrap
Youghiogheny Glass
1000 SP Sipple for Borders with Bevels, 2 Sq. Ft.
Additional Glass
1" Square Bevels for Background and Border Accents, 18
3 mm Float Glass for Mixing Plum, 2 Sq. Ft.

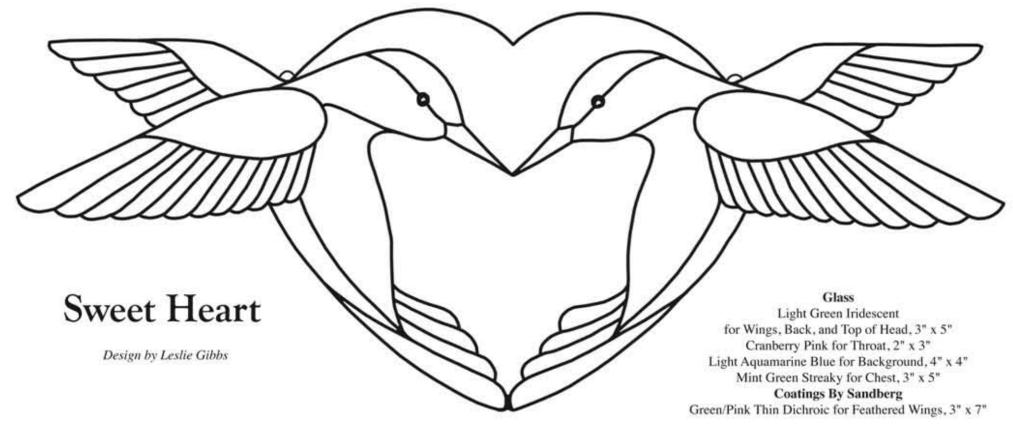


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Swallowtail

Design by Justin Behnke

Wissmach Glass Company
 310CLA Dark Amber Classic
 for Rope Border and Butterfly Wings, 1/4 Sq. Ft.
 EM4932 Medium Yellow Green
 for Leaves, 1/2 Sq. Ft. Additional Glass
 Dark Orange for Center of Flower, Scrap
Spectrum Glass
 OGT60768 Orange Inferno Pearl Opal, 1/2 Sq. Ft.
Additional Glass
 Avocado Green for Flower Stems, Scrap
 Black for Butterfly Wings, Scrap
 Bright Yellow Opal for Butterfly Wings, Scrap
 Medium Blue Hammered
 for Butterfly Wings and Body, Scrap
 White/Dark Blue for Outer Border, Sq. Ft.
 Firelight White Opal for Rope Border, 1/4 Sq. Ft.
 Clear Iridescent Rough Rolled
 for Background, 3/4 Sq. Ft.



Sweet Heart

Design by Leslie Gibbs

Glass
 Light Green Iridescent
 for Wings, Back, and Top of Head, 3" x 5"
 Cranberry Pink for Throat, 2" x 3"
 Light Aquamarine Blue for Background, 4" x 4"
 Mint Green Streaky for Chest, 3" x 5"
Coatings By Sandberg
 Green/Pink Thin Dichroic for Feathered Wings, 3" x 7"

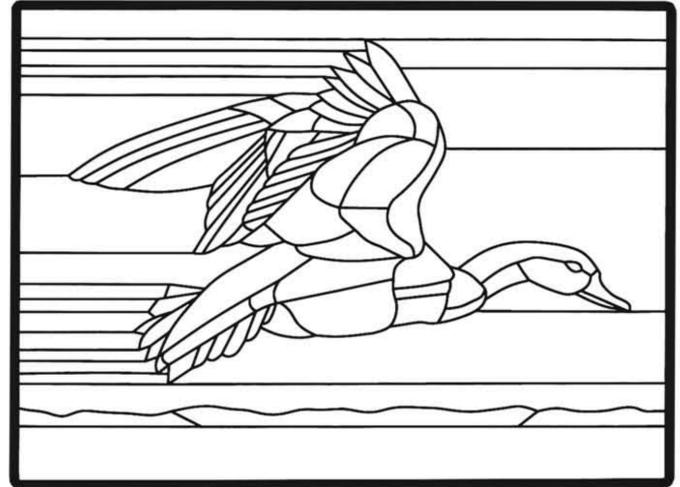


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Scenic Overlook

Design by Mary Harris

Wissmach Glass Company
 71-L Dark Brown/Green/Light Blue/Light Opal/Crystal for Deer Body, 1-1/2 Sq. Ft.
 503-L Light Opal/Dark Gray/Brown for Deer Legs, Rump, and Face, Scrap
 145-SP Dark Amber/Opal/Crystal for Antlers, Scrap
 77-L Light Brown/Yellow Green/Light Opal for Antlers, Scrap
 78-L Medium Amber/Green/Light Opal/Crystal for Landscape, 2 Sq. Ft.
 61-L Green/Brown/Light Opal/Crystal for Landscape, Scrap
 245-L Medium Amber/True Green Streaky/Light Opal/Crystal for Landscape, Scrap
 WO-59 Dark Brown/Green/Opal/Crystal Wispy for Landscape, Scrap
 155-L Dark Purple/Green/Light Opal/Crystal Streaky for Tree Trunk, Scrap
 23-L Light Green Light Opal/Copper Red for Tree Tops, 1 Sq. Ft.
 WO-112 Dark Green/Dark Amber/Opal Wispy for Tree Tops, 1 Sq. Ft.
 238-D Dark Purple/Dark Blue/Dense Opal/Crystal for Sky, 3-1/2 Sq. Ft.

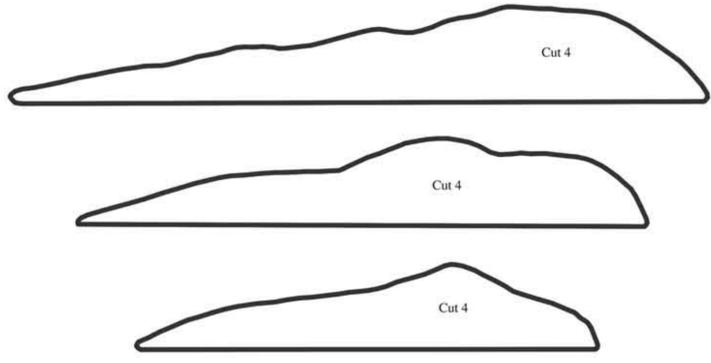


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Flying Duck

Design by Jean Beaulieu

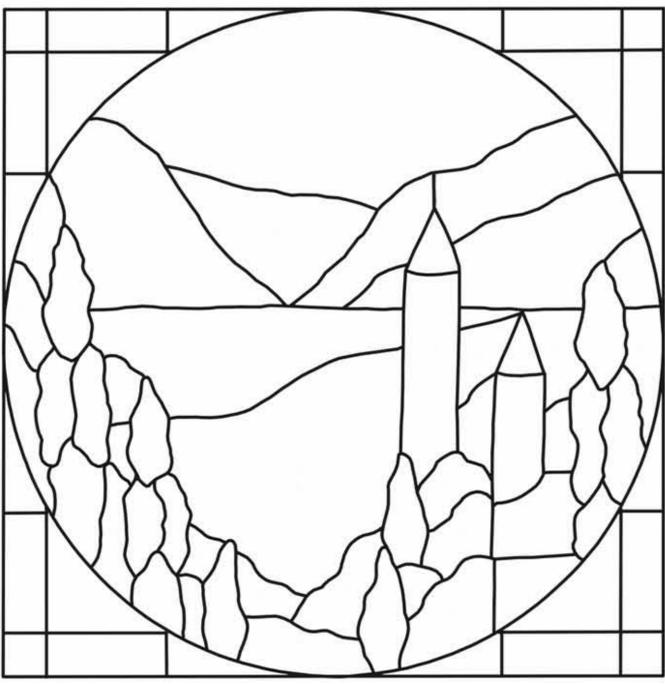
Wissmach Glass Company
 BLACK for Eye, Scrap
 WO-112 Dark Green/Dark Amber/Opal Wispy for Head, Scrap
 1-L Silver Yellow/Light Opal/Crystal for Beak, Scrap
 71-L Dark Brown/Green/Light Blue/Light Opal/Crystal
 for Neck and Back, Scrap
 502-L Light Opal/Medium Gray/Brown for Breast and Wing, Scrap
 503-L Light Opal/Dark Gray/Brown for Wing and Tail, 1 Sq. Ft.
 118-LL Cobalt Blue/Opal/Crystal Streaky for Wing, Scrap
 243-LL Dark Blue/Yellow Green Streaky
 for Water and Landscape, 1/2 Sq. Ft.
 WO-94 Medium Purple/Amber/Opal/Crystal Wispy for Sky, 2 Sq. Ft.



3-D Winter Icicles

Design by Lidia K. Anderson

Glass
 Clear Glass, Scrap
 Textured Glass, Scrap

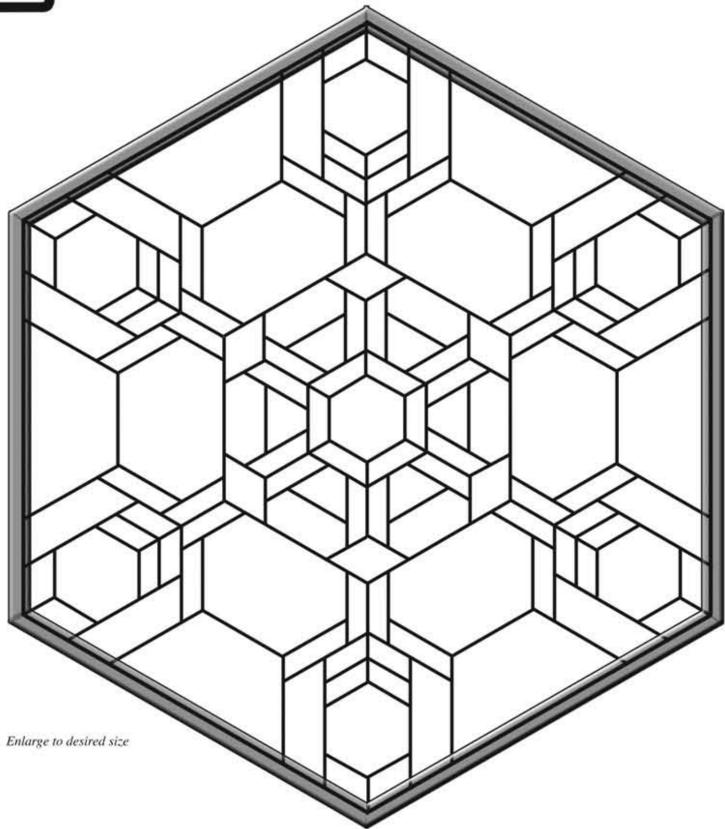


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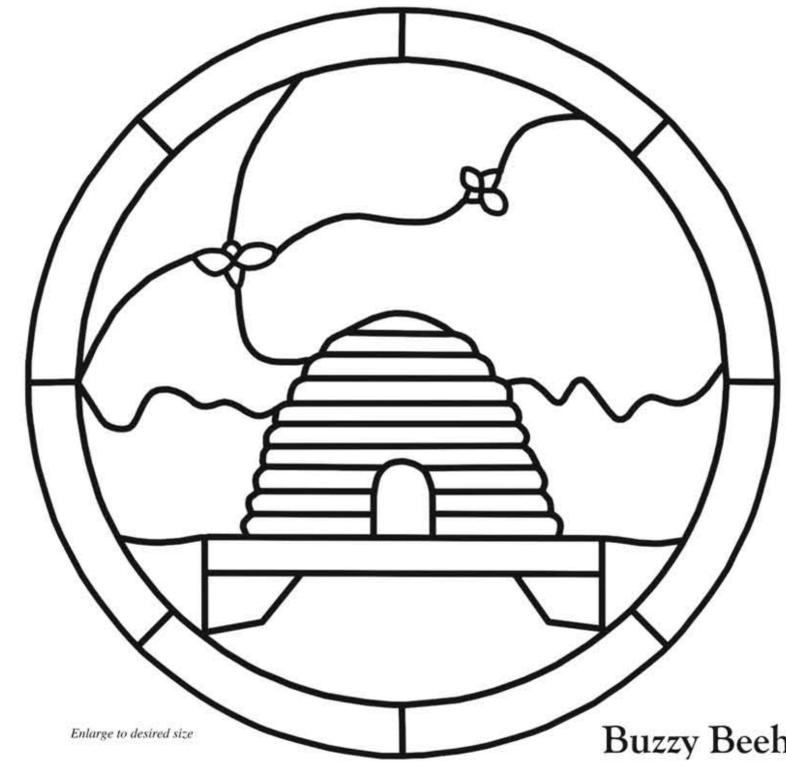
Glendalough A Legendary Irish Landscape

Design by David Kennedy

Wissmach Glass Co.
 85-D Medium Purple/Sky Blue Dense Opal/Crystal for Sky and Mountains, 1-1/2 Sq. Ft.
 145-D Dark Amber/Dense Opal/Crystal for Mountain Center, Scrap
 WO-704 Medium Green/Brown/White Opal Wispy for Trees and Tree Line 1/2 Sq. Ft.
 WO-707 Light Blue/Dark Blue/White Opal Wispy for Lake, 1/2 Sq. Ft.
 565-L Gray Light Opal/Dark Gray for Towers and Church, Scrap
 WO-152 Yellow Green/Dark Green Wispy for Grassland, 1/2 Sq. Ft.
 EM318 Medium Olive for Foliage, Scrap
 EM343 Green for Foliage, Scrap
 EM161 Light Olive for Foliage, Scrap
 570-L Dark Gray/Light Opal for Tower and Church Roofs, Scrap
 343 Medium Green Cathedral for Foreground Trees, Scrap



Enlarge to desired size



Enlarge to desired size

Buzzy Beehive

Design by Paned Expressions Studios

Wissmach Glass Company
 61-L Green/Brown/Light Opal/Crystal for Background Landscape, 1 Sq. Ft.
 57-D Medium Green/Dense Opal/Crystal for Foreground Landscape, 1 Sq. Ft.
 188-L Gray Blue/White Light Opal for Sky, 1-1/2 Sq. Ft.
 145-SP Dark Amber/Crystal for Hive, 1 Sq. Ft.
 199-LL Medium Amber/Dark Amber Brown Streaky for Border and Hive Stand, 2 Sq. Ft.
 55-LL Amber/Green/Opal/Crystal Streaky for Bees, Scrap
 RIP-01 Clear Ripple for Bees Wings, Scrap

Prairie Style Snowflake

Design by Chantal Paré

Wissmach Glass Co.
 EMx118 Pale Blue English Muffin, 1 Sq. Ft.
 Dew Drop-01 Iridescent, 1 Sq. Ft.
 Figure C 01 Textured 1 Sq. Ft.
 Aerolite-01, 1 Sq. Ft.
Additional Glass
 3 mm Clear Float Glass, 1 Sq. Ft.

Buzzy Beehive

Design by Paned Expressions Studios, Text by Darlene Welch

When you see bees hovering over the flowers in your garden, a stash of honey is probably not far away. This delightful 18" round stained glass panel from the *Kids Stuff?* CD pattern collection by Paned Expressions Studios will remind you of sweet bee treasures that await you.

Careful selection and placement of the glass colors add depth and interest to the scene—choosing a darker portion of the green foreground glass, for example, to give the appearance of a shadow under the hive. The various shades of amber streaky glass also provide a look of texture to the beehive and are perfect for the border and stand.

This pattern is just one of over 60 designs included on the CD for *Fairy Tales and Stories*, *Aesop's Fables*, *Nursery Rhymes*, *For the Baby's Room*, *More Childish Things for All Ages*, and *Fun Projects for Kids*. The patterns are provided as image files only, and no software is included on the CD. All patterns are provided in color and black & white in JPG, TIF, and GlassEye formats for both PC and Mac for easy resizing, reshaping, and recoloring. The patterns also cover all levels of glass skills, so there is something for everyone. Visit www.panedexpressions.com for this and many other pattern collections from Paned Expressions Studios.

GPO



Wissmach Glass Company

- 61-L Green/Brown/Light Opal/Crystal for Background Landscape, 1 Sq. Ft.
- 57-D Medium Green/Dense Opal/Crystal for Foreground Landscape, 1 Sq. Ft.
- 188-L Gray Blue/White Light Opal for Sky, 1-1/2 Sq. Ft.
- 145-SP Dark Amber/Crystal for Hive, 1 Sq. Ft.
- 199-LL Medium Amber/Dark Amber Brown Streaky for Border and Hive Stand, 2 Sq. Ft.
- 55-LL Amber/Green/Opal/Crystal Streaky for Bees, Scrap
- RIP-01 Clear Ripple for Bees Wings, Scrap

Tools and Materials

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

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Cardinal in A Pine Tree

Design, Demonstration, and Text by Lisa Vogt



Cardinals are a bright, cheerful sight in the peaceful winter months. The colorful little fellow featured in this 8" x10" design will bring joy to your home all season long. You'll love how fast and easy this delightful project is to make. Let's get started.

Detailed projects like this one are easier to make if you work from a pattern. Preparing the pattern may seem tedious, but the increase in accuracy and fit really improve the overall quality of your finished project. Patterns also make more elaborate designs manageable so that even the most intricate design is still fun to build.

96 COE Glass

Clear for Base, 1 Sq. Ft.
Sky Blue for Sky, 1 Sq. Ft.
Flame for Cardinal, Scrap
Fern for Pine Tree, Scrap
Marigold for Bird Beak, Scrap
Medium White Frit for Snow

Coatings By Sandberg

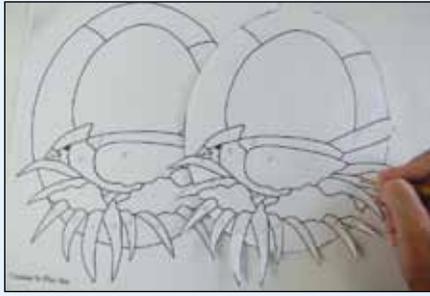
Rainbow 1 on White Dichroic Frit

Tools and Materials

Pencil Scissors
ThinFire Fiber Paper
Snowflake Paper Punch
Small Paint Brush
Toothpick Fuser's Glue

1

Number the different sections of the design, then make two copies of the pattern.



Timesaver Tip: Number the pattern before making the copies. Don't be like me and forget to do it before heading to the glass studio.

2

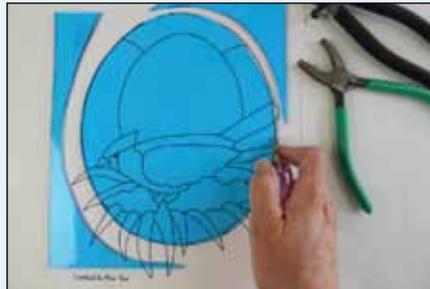
Using the pattern as a guide, cut the base layer out of clear glass.



To maintain a consistency in the thickness of the finished art, this free-form shaped project is made with two layers of glass, with the base being cut from clear glass. Cut the oval shape first. Next cut the clear pieces for the tips of the pine needles that extend outside of the oval shape. Cutting these little pieces and adding this extra step ensures that the narrow pine needles will keep their shape during firing. Without the clear base, they'll shrink disproportionately to the rest of the project and be fragile after fusing. Now that the base is cut, let's move on to the second layer.

3

Cut blue glass for the sky to the same shape and size as the clear oval base.



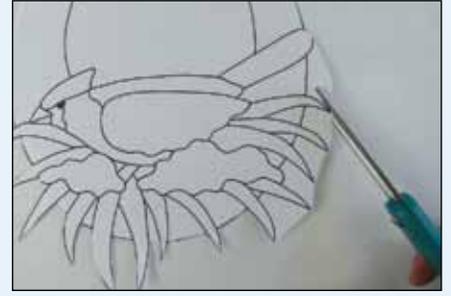
4

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



5

Use scissors to cut one paper pattern into the free-form shape.



6

Draw a line around the pattern on a primed kiln shelf or on a fiber paper lined shelf.



7

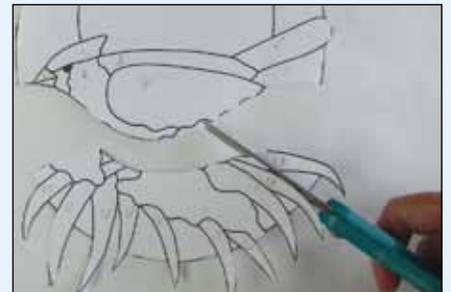
Arrange the clear base pieces on the shelf inside the pencil line.



Set the shelf and assembled glass aside. Now comes the fun part—cutting the pine needles and cardinal.

8

Cut up the pattern.



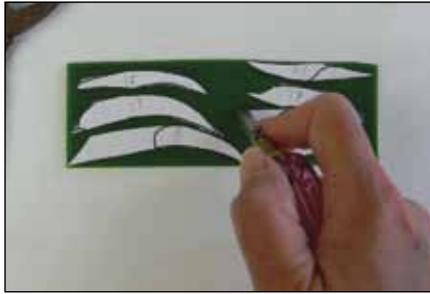
9

Glue the pine needle pieces onto the green glass with a glue stick.



10

Cut around the pine needle pattern pieces.



Trim as closely as possible to the edge of the pattern pieces without running into the paper. Remove any excess glass with pliers. Now glue the cardinal pattern pieces to the red glass and cut out the cardinal pieces in the same way as you did for the pine needles.

11

Grind the cut glass pieces to improve their shape and fit.



Remove the wet pattern pieces from the ground glass, then clean and dry the glass with a towel.

12



Arrange the bird and pine needles on the spare pattern and set aside.

13



For a fun added detail, use a paper punch to make snowflake shaped flurries for the background glass.

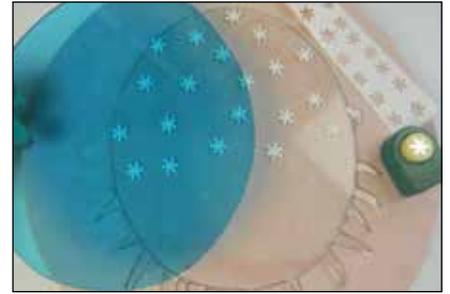
14



Press the snowflakes out of the Thinfire fiber paper and scatter them on the clear base.

15

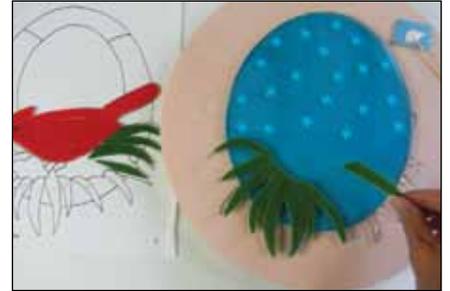
Stack the blue on top to seal the snowflakes between the clear and blue layers of glass.



FYI, I have not tried this encasing technique with other fiber papers. If you use a different paper, your results may vary.

16

Using the paper pattern and pencil line as a guide, stack the pine needles and cardinal on top of the blue glass.



17

Hold the pieces in place by applying a small amount of fuser's glue with a toothpick.



This keeps the pieces from moving when you carry the kiln shelf and glass to the kiln.

18

Spoon white frit on the pine needles to represent snow.



19

Use a small paint brush to clean up the top edge of the snow and sprinkle a little white frit on the blue sky.





20

For a little sparkle, place white dichroic frit on top of the snow and on the blue sky.



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

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

21

Fire the assembled glass to a full fuse temperature using the guide at the end of the tutorial.



I love the crisp, vibrant colors of the finished piece and the extra detail that the encased fiber paper stars give to the sky. The Thin-fire got a little smaller during firing and left a delicate star shaped snowflake pattern in the background. The sparkly dichroic frit adds a little magic to this winter wonderland.

This season when you're feeling the icy chill of cold winter days, create your own warmth. Snuggle up to your kiln and make this cheery Cardinal and Pine Tree design. This pattern is just one of many seasonal delights you can make that are included in the *Home for the Holidays* book now available as a download on my website. Happy fusing!

GPQ

Firing Schedule

Note that all kilns fire differently. Test-fire these guides in your kiln and make any adjustments as needed for your own kiln.

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

*as fast as possible



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The Kiln Corner

Simple Thermocouple Repairs

by Arnold Howard

The temperature sensor in a digital kiln is called the thermocouple. The tip of the thermocouple generates a faint electric signal when heated, and the controller, in turn, interprets that signal as a temperature.

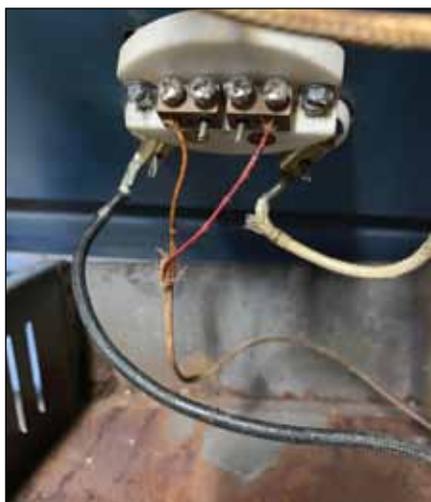
When the temperature in your controller becomes inaccurate or the temperature fluctuates during a hold, don't assume that you have to replace the thermocouple or the controller. The problem is often easy to correct without replacing expensive parts. Let's cover some of the things you can check.

1
First, unplug your kiln or disconnect it from the power and find the thermocouple.



The thermocouple is the small rod that extends into the firing chamber. On the other side of the kiln wall you will find a control panel or switch box. Remove that panel.

2
Locate the place where the thermocouple is attached to the connection block.



The thermocouple is attached to a connection block and the yellow and red wires go from the connection block to the controller. On most kilns the block is oval shaped.

3
Pull the thermocouple out of the kiln.



Label the four wires on the connection block so you can reinstall them correctly later. Two screws attach the thermocouple connection block to the kiln. Remove those two screws as shown and gently slide the thermocouple out of the kiln for further examination.

4
Check the position of the pins in the connection block and replace the block if necessary.



Turn the connection block over and look at the side that goes toward the kiln wall. You will find two pins. If those pins extend past the ceramic block, they could touch the kiln case and short out the thermocouple. It would still work, but with reduced accuracy. If the pins extend past the oval block surface, replace the block.

5

Check to see if the thermocouple wires have any damage.



When I removed the thermocouple-to-relay wires on a kiln I was repairing, I found that the wire on the left had been broken due to excessive pressure from a screw. This type of damage can be seen by removing the wires.

Loosen the four screws in the connection block, then remove and examine the thermocouple wires. Often the thermocouple will still work even with a damaged wire, but with reduced accuracy.

If the connection block is old and tarnished, either replace the block or clean out the four brass holes where the wires go.

6



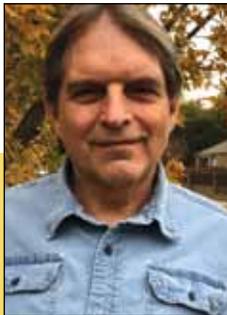
The thermocouple connection block shown here on the left is new. The one on the right is tarnished. Replace the connection block if it's tarnished or clean out the holes where the wires go. Clean and reinstall the wires on the connection block.

Before you slide the thermocouple back into the kiln, make sure the hole in the kiln wall hasn't become enlarged. If the thermocouple is wobbly in that hole, accuracy will be reduced, because cooler air from outside will enter the kiln and affect the thermocouple. If necessary, the thermocouple should be wrapped with a tiny amount of ceramic fiber to tighten the hole.

Reinstall the two screws that attach the connection block to the kiln. The thermocouple should extend into the firing chamber 3/4" to 1". Reinstall the control panel and check the kiln for accuracy.

GPO

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Since 1977 when Arnold Howard began working at Paragon Industries, he has seen kilns evolve from switches to touch screen displays. He helped test the early glass kilns and wrote Paragon instruction manuals, newsletters, and advertisements.

Arnold has taught kiln classes at trade shows, Bullseye Glass in Portland, and in Australia and England. In September 2019, he started Howard Kilns, a repair and preventive maintenance business, to serve the Dallas-San Antonio, Texas, area. Arnold works on all brands of kilns. Feel free to contact him at arnoldhoward@gmail.com.



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Sparkling Snowflake

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



This gorgeous fused glass snowflake project was inspired by those of us who live in the desert and crave anything this time of year that resembles cold weather. A lot of folks who now live in the sunny state of Arizona, with its hot summers and mild winters, were once located in parts of the country that are farther north, where snow abounds in winter. I can certainly appreciate the twinge of nostalgia they feel when December rolls around again, and they begin to wish for at least one good snowstorm for Christmas. I lived in the Chicago area for 35 years myself before moving to Arizona 24 years ago, so snowflakes are all I want to see as we head into the winter months. I hope you enjoy these fused beauties no matter where you are.

There are two versions of this snowflake. The solid snowflake requires seven and a half sets of the components. The more pointed one only requires five sets. We suggest you make eight components in order to have some options on how to arrange them. Embellishment of the snowflakes is only limited by your imagination, since just as in nature, no two will be exactly alike.

96 COE Glass

Clear, 4" x 12"

Translucent Blue Glass with Wispy Designs in 3 Shades

Clear Dichroic, 2" x 4"

Options for Embellishments

Murrine Slices

Pebbles or Nuggets

Clear Dichroic (optional)

Tools and Materials

Glass Cutter Protective Eyewear

Running Pliers Clear Gel Glue

Kiln Paper or Prepared Kiln Shelf

Morton Cutting System

Creating the Components

Using the Morton System, cut 8 squares for each of the 3 different Transparent Blue and the Clear Dichroic glasses.

1



Cut 8 glass squares for each of the following: 2" squares for color #1; 1-1/2" squares for color #2; 3/4" squares for color #3; 1-3/4" and 1" squares for the clear glass; and 1/2" squares for the clear dichroic.

Arrange the eight 2" squares on the kiln paper or kiln shelf and apply a drop of clear glue to the center of each square.

2



Allow a minimum of 1" of space around each square.

Build the 8 tiles.

3



Center a 1-3/4" clear glass square on each 2" base square. Continue building the 8 tiles in order: Color #1, 1-3/4" Clear; Color #2, 1" Clear; Color #3. Be sure to press down on each piece of glass after adding it to the stack to be sure it is adhered, since we don't want the squares floating out of their stacks as they fuse.

When adding the dichroic to the pile, it is important for the top piece of dichroic to be added to the stack with the dichroic side facedown. If your dichroic is textured, the dichroic side is easy enough to figure out. Fire the tiles using the full fuse firing schedule at the end of the tutorial.

With the flat side of the tile down, cut each tile in half with the glass cutter.

4



Your cut doesn't have to be perfect, since we will be fusing the halves together.

Gently tap the underside of the glass tile with the glass cutter below the score line you created.

5



While tapping the glass tile, hold the glass cutter backwards with the metal screw (where you put the oil) upright. Continue to tap from the edge of the score line to the other side until the tile breaks for you. Continue with each tile, making sure to keep them in pairs.

Apply a drop of glue to the flat side of one tile in a pair and align the tiles with the flat sides together.

6



Set the tile pair aside with the cut side down and allow the glue to dry. Repeat with the 4 additional pairs. You will need 5 glued sets for either snowflake design.

Once the 5 tile pairs have dried, arrange them in a starburst pattern, cut side down, on a piece of kiln paper or a prepared kiln shelf.

7



There are two versions of the snowflake, each starting with the starburst pattern. Either version can be built up and embellished in any way you desire.



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Fuse the snowflakes using the suggested full fuse schedule at the end of the tutorial. **GPO**



Full Fuse Schedule

Remember that all kilns fire differently, so you may need to make adjustments to the schedule below to fit your own kiln.

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

Snowflake A

Arrange the single cut tiles between each spindle of the starburst with the flat side facing out. Apply drops of glue to the center, then add a glass pebble to each corner for a tip.



Snowflake B

Arrange glass pebbles or murrine slices inside the spokes and onto the end of each spoke to embellish the design. You can add just a few or add larger clusters to create a more elaborate pattern to your design.



Alysa Phiel, a regular contributor to Glass Patterns Quarterly™ since 2012, is a third-generation glass artist with 30 years of experience having been taught by her grandparents, longtime glass artists who owned their own studio for 12 years. Alysa then owned and operated

Creations in Glass with her mother for 10 years. She has also shared beginning to advanced classes with hundreds of students over the past eight years as the Director of the Warm Shop at Sonoran Glass School in Tucson, Arizona.

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

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

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Sizzle Stix Puzzle Pendant

Design, Fabrication, and Text by Susan McGarry



This is a quick and easy project. It can be made in one firing, so it will be ready for that special night out or as a gift for a special friend in a flash. Sizzle Stix pack a lot of color in a small package. Once you learn the technique, try making larger pieces. I hope you are enjoying making these colorful puzzle pendants.

To begin, you'll need to cut the black glass piece to your desired size for the pendant base. Then it's time to cut the Sizzle Stix to size.

Bullseye Glass Co.

1101-067 Rainbow Sizzle Stix for Design
1101-037 Rainbow Sizzle Stix for Design
100 Black for Base, 1.5" x 1.5" and 1.125" x 1.5"

Tools and Materials

Glass Glue or Hair Spray
Tweezers Glass Nippers
Bail E6000® Glue
Chain or Cord for Hanging

2

Place the Sizzle Stix pieces on the black glass in a random pattern.



It's much like a puzzle deciding how to design your piece. In my examples, I have used the wider 1101-067 Sizzle Stix on the larger piece of black glass and the smaller 1101-037 Sizzle Stix on the smaller piece of black glass. You can also combine the two sizes of Sizzle Stix on each piece.

The dichroic coating is only on one side of the Sizzle Stix. You can design your pendant with the coating side of the pieces all up, all down, or a with a mixture of the two. It's a personal preference.

1

Measure the Sizzle Stix to your desired lengths and use the glass nippers to cut them into small pieces.



3

Fire the pendant to a full fuse.



Use the following fusing schedule to full-fuse your pendant. Since these are very small pieces, you can fuse them very quickly. For larger pieces, use a much slower schedule and include an annealing segment. Remember that all kilns fire differently, so you may need to make adjustments in the schedule for your own kiln.

Fire the pendant at 500°F per hour to 1450°F and hold for 10 minutes. Turn the kiln off and allow it to cool to room temperature before opening the kiln.

4

Glue bails onto the pendants for hanging.



I use E6000 to glue my bails. It's quick and strong if you do it right. First I use a rotary tool to rough up a small area where the bail will be placed. Next I place a small amount of E6000 on the pad of the bail. Attach the bail to the pendant and press it down for at least 15 seconds. Clean off any excess glue that has squeezed out.

After 24 hours, place the pendant in a 275°F oven or kiln for 20 minutes. Allow it to cool before wearing. Now add your favorite chain or cord, and it's ready to wear.

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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 artists 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 as well as on Instagram.



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Colors that are currently available include clear, black, and white plus assorted shades of violet, green, blue, red, and gold. Wissmach began making 96 COE frit in 2017 and has plans to continue adding more colors. Ask your supplier for these beautiful Wissmach 96 Glass Frits and visit the company's website for more details.

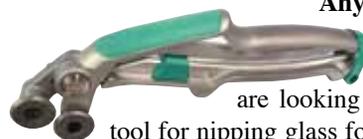
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www.wissmachglass.com

Hoevel Manufacturing, which has been in existence for over 40 years, is excited to announce the company's **new website**. Now up and running, it's a great place to find time-saving products for stained glass artists. The Hoevel product line has gone through many name changes over the years, but the quality of its stained glass products created by Herle Diegel, the company's founder, has remained the same. Hoevel Manufacturing offers the Diegel products including the Diegel Foiler and the Kwik-Crimp Burnisher, which burnishes both sides of the foil at the same time, plus Kwik-Clean Flux and Patina Cleaner and Color Magic nonfiring permanent glass and metal paint. For more information about Hoevel and its amazing products, visit the company's website.



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Breda Mosaic Nippers. These nippers are made for artists who are looking for a lightweight, comfortable

tool for nipping glass for mosaics. They are made from aluminum and feature high-quality carbide blades that multiply your force by five times while keeping your wrist at a safer angle to help avoid repetitive stress injuries. Breda Mosaic Nippers also have a numbering index on the blades so you know how many times you have rotated them and are fully reversible for both right- and left-handed use. Visit the company's website for more information on this great product.

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Victorian Art Glass has new **Master Artisan Steel Wave Molds** that are made from heavy-duty stainless steel to withstand multiple firings. The molds come in two sizes, 6" x 12" and 12" x 16". The molds can be used with kiln wash, boron nitride,



or covered with kiln paper. Visit the Victorian Art Glass website or contact the company for more information on these great new molds. 2503829554 sales@vicartglass.com
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AAE Glass, providers of glass art education, inspiration, and supplies, now offers **SilkeMat™**, a noncarcinogenic fiber blanket that can be cut, molded, rigidized, and formed. It can be used with and without rigidizing. Although a high-grade boron nitride separator could be used for art glass firings, AAE has not found this to be necessary. There is also no "shot" in this product, which comes in 24" x 24" x 1/4" and 12" x 12" x 1/4" sizes. Most firings are clean, leaving only the texture of the fiber on the glass. Visit the AAE Glass website for more details on this remarkable product.
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Glass Patterns Quarterly™ makes it easy with **Glass Expert Webinars™** to learn glass art techniques from the industry's top artists and instructors without ever leaving home. There's nothing quite like getting immediate answers from the instructor via live chat while experiencing the fun and synergy of learning and growing with a group of your fellow glass art lovers. Purchase of the live class also includes a link to a recording of the class event that never expires. The magazine has planned an upcoming schedule for 2020 just waiting to present a wide variety of glass techniques including: Vitrigraph Techniques with Dennis Brady (Jan. 7), Fused Glass Sculptures with Lisa Vogt (Jan. 14), Fusing with Tempered Glass with Tony Glander (Jan. 21), Cutting Glass with Joe Porcelli (Jan. 28), and a Selling Your Work lecture with Dennis Brady (Jan. 30) plus many more throughout the year. Visit the Glass Expert Webinars™ link on the magazine's home page for a complete listing of upcoming webinars.
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Glass Patterns Quarterly™ offers a fabulous collection of links to its **Recorded Webinars**. If you missed a live webinar event, **Glass Expert Webinars™** you can purchase a link to the recorded version that never expires and watch it whenever you like, wherever you like. There are currently 49 recordings covering a wide variety of hot, warm, and cold glass techniques available from renowned artists and instructors including Dennis Brady, Lisa Vogt, Harish Dewani, Gil Reynolds, Jackie Truty, Joseph Cavalieri, Lewis Wilson, Kent Lauer, Corina Tettinger, Margot Clark, and many others. For a complete list of available recordings, visit the Glass Expert Webinars™ link on the GPQ home page, then go to the Recorded Links section to find current offerings. You'll also want to check back often for new additions.
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GPQ would like to wish everyone the very best as we enter this holiday season!

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Season's Greetings
Maureen, Darlene, Rhonda, Kathy
Jennifer, Dave, and Mark

Amaryllis

Design, Demonstration, and Text by Chantal Paré

*“Give me kind Amaryllis,
the wanton country maid.
Nature art disdaineth;
her beauty is her own.”*
—Thomas Campion

There is nothing like an amaryllis bulb to brighten our winters and fill us with childlike wonderment. From its humble beginning in a small pot, helped by warmth and sunlight, a stem begins to emerge and grows at an astonishing speed. With leaf growth still lagging far behind, four large buds break out of the top of the stem and open into a spectacular, oversized floral display. While the real flowers last about a week, this glass counterpart brings amaryllis magic year-round.

I have opted to enhance this panel with glass painting. If you do not have access to the required materials and equipment, the project will also turn out well without the painting. Stamens at the center of the central flower can be made out of foil overlay or with wire accents.

Don't let the name of the Wissmach Light Orange throw you off. It's a brilliant red with only a tinge of orange shift. It's a favorite in my studio.



Wissmach Glass Co.

18 H Light Orange Hammered

for Flowers and Bottom Inner Border, 1 Sq. Ft.

EM4931 Dark Copper Blue English Muffle

for Outer Border, 1-1/2 Sq. Ft.

DR319 Dark Yellow Green Double Rolled

for Stem, Leaves, and Top Inner Border, 2 Sq. Ft.

Aerolite-01 Clear Aerolite for Bottom Inner Border, Scrap

Spectrum

110.8A Medium Amber Artique® for Background, Scrap

Youghiogheny

1000 SP Stipple for Borders with Bevels, 2 Sq. Ft.

Additional Glass

1" Square Bevels for Background and Border Accents, 18

3 mm Float Glass for Mixing Paint, 2 Sq. Ft.

Tools and Materials

Reusche Stencil Black #1059

Gum Arabic 1/2" U-Came Zinc

60/40 Solder Soldering Flux

3/16" Black-Backed Copper Foil

14-Gauge Pretinned Copper Wire

Glass Cooktop Cleaner Towel

Masking Tape or Electrical Tape

Liner Paintbrush Badger Brush

Stiff Blunted Hog Hair Brushes

Palette Knife Kiln Fid

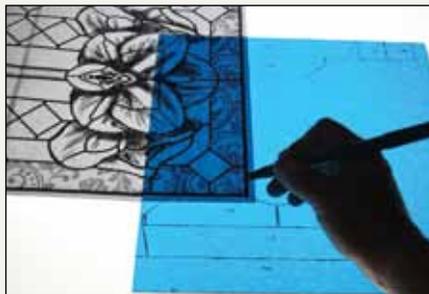
Light Box Came Miter Saw

Whiting (Calcium Carbinat)

Carbide Wheel Glass Cutter

Glass Breaking Pliers

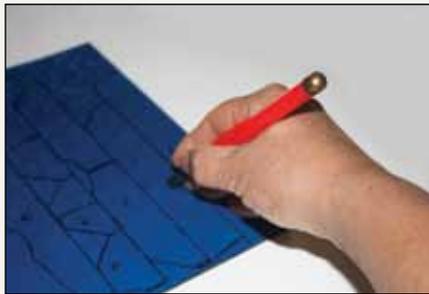
1



Trace the pattern onto the glass.

Print a single copy of the pattern. Using light box illumination, individually trace the pieces onto the glass with the glass flat side up.

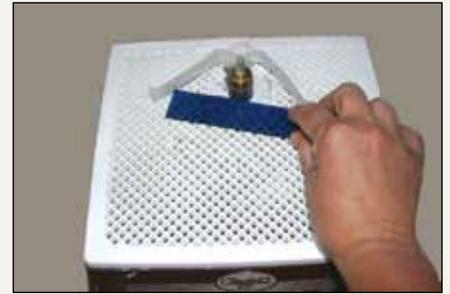
2



Score and break the glass.

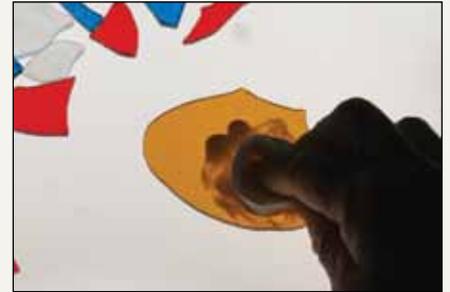
One cut at a time, score the glass just inside the marked lines, then break off the pieces until they are all separated.

3



Grind the pieces for a perfect fit with the pattern using an electric grinder.

4



Clean the glass.

Place your glass on a towel, squirt some glass cooktop cleaner on the surface, and scrub vigorously over the entire surface. **Note:** *This step is crucial* to remove any water-repellent residue that contaminates glass from the manufacturing/handling process.

5



Prepare the glass paint on a piece of float glass.

Drop one heaping tablespoon of Stencil Black paint powder onto the float glass and sprinkle it with gum arabic the size of a pea. Add water a little bit at a time, mixing with a palette knife, until the slurry reaches the viscosity of heavy cream.

6



Paint the black design areas on the pattern.

Against backlighting, trace with paint using a liner brush. Allow the paint to dry.

7



Refine your painting by scraping off any unwanted paint with a wooden fid.

You could also use a paintbrush with its distal end made into a point with a pencil sharpener.

8
Carefully place your glass in the kiln on primed shelves and fire using the suggested schedule.



Do not exceed 1050°F, which is well below recommended firing temperatures for tracing black, because the 1000 SP glass will turn opaque and milky white. Remember that all kilns fire differently, so you may need to make adjustments for your own kiln.

Segment 1: Ramp 550°F/hr to 900°F and hold 5 min.
Segment 2: Ramp 9999 (AFAP*) to 1050°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 to cool to near room temperature before opening.

9
Prepare a matte layer.



Prepare to matte your pieces as in step 6, but using less gum arabic, this time the size of a peppercorn, and more water. Apply this slurry to the glass with an ordinary paintbrush that is about 1" wide. Aim for only 10 percent transparency. Spread evenly with very light brush strokes back and forth with a badger brush. Allow to dry.

10
Reveal the shading.



Remove some of the matte by tapping with blunted, stiff hog hair brushes to create brighter areas, leaving only the shading.

11

Return the pieces to the kiln.



Be mindful not to touch the matte, since it comes off easily. Use the same firing schedule as in step 8. If you have chosen different, less sensitive glass than the 1000 SP for your project, adjust the maximum temperature according to the manufacturer's recommendation for this second firing.

12

Wrap all the edges of the glass pieces with copper foil.



Crimp the foil down with a fid or the side of small scissors.

13

Prepare a jig using a carpenter square to ensure perfect corner angles.



14

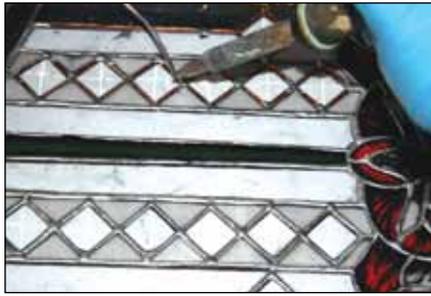
Tack-solder the project.



Brush small areas with flux, then tack-solder the edge pieces against the jig to ensure that the panel has straight edges. Use widely spaced drops of solder to hold the glass in place. Be sure to work slowly and carefully, centering each piece of glass on the corresponding space on the pattern. This will ensure that the geometric areas of the design have straight lines and consistent angles.

15

Solder both sides of the panel.



Solder one side making a nice bead over every joint. Stop short of beading the project's outer edges to leave room to slip on the zinc frame. Remove the jig around the project and turn the panel over to solder the other side.

16

Cut the zinc U-came frame pieces with a came miter saw.



Taking careful measurements, prepare 4 sides of zinc U-came, cutting with a manual or electric miter saw.

17

Tack the frame sides to the project.



Soldering on zinc requires more flux and more heat than what is required for lead. Brush each area where a lead line abuts the frame with flux, drop a bit of solder on the zinc near the junction, and melt the solder until it reaches the lead line.

18

Solder the frame corners.



Use masking tape as resist to ensure straight solder edges at the corners. Fold over two 1-1/2" lengths of pretinned 14-gauge copper wire. Nestle the bent pieces of copper wire inside the top joints to serve as hooks.

19

Apply whiting to the panel.



Do not use chemical patina on painted glass. Instead, generously sprinkle whiting (calcium carbonate) and brush vigorously with a burnishing brush to patina the lead came and joints until they become medium gray. With time, the lead will continue to naturally darken. To finish, scrub your project with glass cooktop cleaner and rinse away the cleaner with water.

GPO

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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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Starfish Reactive Tray

Design, Fabrication, and Text by Lisa Stirrett



Oh, the joys of working with float glass! More and more glass artists are discovering the endless benefits and possibilities offered by using what is commonly known as window glass in their creations. The difference between float glass and art glass hides within how the glass is made. Unlike art glass, float glass is made with a small amount of tin only on one side. This tin, combined with certain float frit colors, creates amazing reactions that you will not find with art glass. Float glass also costs much less than art glass and is often even available free as scrap.

There are so many different techniques that make working with float glass sheet and frit very rewarding. The custom reactive technique presented in this tutorial will help you create a fun and crowd-pleasing tray. Products from Glassycuts.com will make the process fun and easy.

Glass

Window Float Glass, 8" x 8" (2)

Glassy Cuts.com

System 82 Float Glass Precut Shapes

Starfish

System 82 Float Glass Frit

Amber 0 Powder

Amber Size 4

Medium Size Giblets

Tools and Materials

Kiln Shelf Paper

Copper Mica Fine and Medium Enamel Sifters

CRL UVG4 Tin Side Detector

Sharpie® Marker Pencil Writer

8-1/2" x 8-1/2" Square Slumping Mold

1

Gather all of your supplies, then clean both sides of the 8" x 8" float glass and the starfish shape.

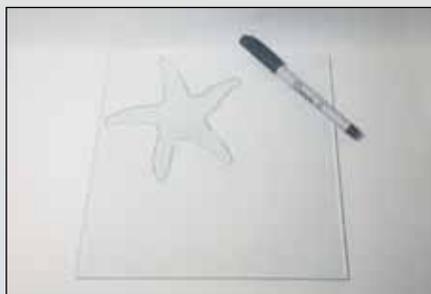


After you have cleaned the glass, you will need to find the tinned side of the float glass pieces. Only one side of the glass has the metal tin, and you cannot see it with the naked eye. Use the tin finder detector and a Sharpie marker to find and mark the tin side of the glass, which is the one that glows from the ultraviolet light of the tin finder detector. The side that does not have tin will not glow.

Finding the tin side is significant, because we will be using both sides of the glass to create a reaction, a beautiful blue patina look that is unique to the use of float glass and Amber frit.

2

Place one of the 8" x 8" float glass pieces in the kiln and trace the starfish shape onto the second 8" x 8" float glass sheet.



Place one of the 8" x 8" sheets in the kiln on kiln shelf paper, tin side up. Start with the second 8" x 8" float glass sheet tin side up. Place the Glassy Cuts float glass starfish, tin side down, on top of the 8" x 8" sheet. Lightly trace the starfish onto the second piece of glass with a Sharpie. The marker will burn off in the kiln. Remove the starfish and set it to the side.

3

With a large sifter, lightly dust the Amber 0 powder all over the glass.



Sift the powder so lightly that you can hardly see it. This will give a golden look to the tray. Too much and your tray will be less golden and more amber in color.

With the medium size sifter, sift the Amber 0 powder a little heavier around the edges, undulating in and out to make the tray feel like the shoreline. Sift only enough powder for you to follow as a guideline.

4

Use the medium sifter to gently dump small mounds of Amber 0 powder around the edges of the glass.



By dumping material into these areas, there will be high and low areas, with some frit mounds thicker than others.

5

Fill in the starfish with taller and heavier mounds of the Amber 0 powder.



These mounds will be part of creating the reaction we are looking for. *Note:* To avoid wasting product, clean your workspace of the excess Amber powder and place it back into the jar. Make sure not to add fingerprints to the project while moving it.

6

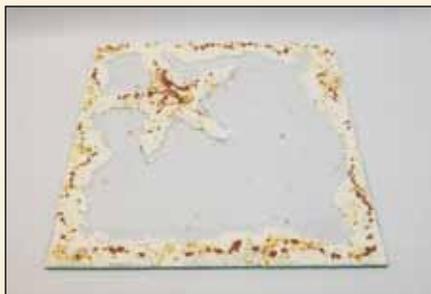
With your fingers, sprinkle Amber size 4 frit around the edge of the glass on top of the powder mounds.



Add the frit to the starfish as well. Some frit may sprinkle onto the middle of the glass. That is okay, but don't let too much get loose on your piece or it may be more spotted than you like.

Note: If too much sprinkles out, use tweezers or lightly wet your finger to pick up the excess. The wet finger trick also works if the powder spills onto an area where you would not prefer the frit to be.

7
 With a pencil writer, apply copper mica in swirl patterns on the starfish and all around the edge of the tray.



8
 Add the starfish shape, then decorate the piece with the giblets.



Place the Glassy Cuts starfish, tin side down, on top of the powder mounds. To finish, sprinkle the medium size Glassy Cuts giblets around the edge of the tray on top of the mounds. You can also create your own giblets by crushing scrap float glass and using the smaller pieces.

Note: Giblets are made from ground up float glass. Because the float glass has tin on one side, the giblets also have tin on one side. It's a toss-up on which side of the the giblets will fall onto the powder. The side with the tin will have a reaction, and the side without will not. I chose to be surprised!

The reaction happens because the amber frit is sandwiched between two pieces of glass where one is tin side up and one is tin side down. Also note that when sprinkling the giblets around the edge, you want to have big enough pieces that will show the reaction, but don't let them hang over the edge.

9



Fire the tray.

This photo shows the piece after the first firing. You could stop there, but if you prefer, continue with a second slump firing using the 8" x 8" square slumping mold to finish the tray. Here are the suggested full fire and slumping schedules. Remember, though, that each kiln fires differently, so you may need to adjust the schedule for your kiln.

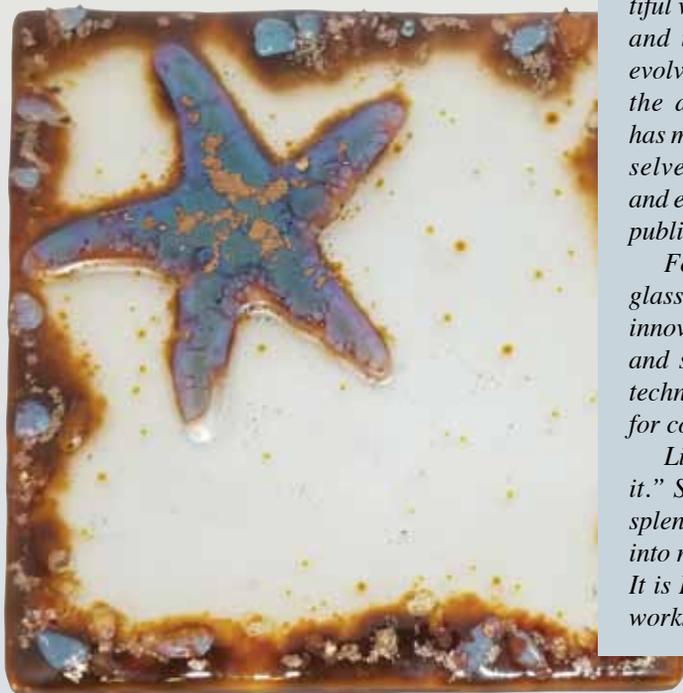
GPO

Float Glass Firing Schedule

- Segment 1: Ramp 600°F/hr to 1510°F and hold 10 min.
 - Segment 2: Ramp 9999 (AFAP*) to 1050°F and hold 30 min.
 - Segment 3: Ramp 100°F/hr to 850°F and hold 15 min.
 - Segment 4: Ramp 9999 (AFAP*) to 100°F and end.
- *as fast as possible

Slumping Schedule

- Segment 1: Ramp 300°F/hr to 1300°F and hold 10 min.
 - Segment 2: Ramp 9999 (AFAP*) to 1050°F and hold 45 min.
 - Segment 3: Ramp 75°F/hr to 850°F and hold 20 min.
 - Segment 4: Ramp 9999 (AFAP*) to 100°F and end.
- *as fast as possible



Since 1988, Lisa Stirrett's goal has been to create beautiful works of art that impact and inspire. Her work has evolved over the years, and the different mediums she has mastered have lent themselves to creating interior and exterior art for personal, public, and commercial use.

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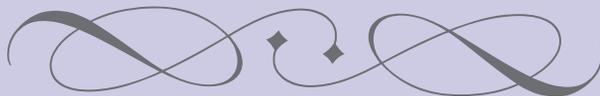


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Embossed Glass

Choosing Your Own Drawing to Create Personalized Glass Art

Design, Demonstration, and Text by Dennis Brady

Photography by Jason Brady

If you're looking for ways to personalize your home decor or make a gift for a favorite someone, this embossed glass project may be just the thing to help you create a splendid piece of art that fills the bill. This project allows glass enthusiasts the opportunity to select a favorite drawing for the design. If you've gathered everything you'll need and cut your glass pieces to the correct size, let's get started.



96 COE Glass

Clear Glass, 12" x 12"
Amber Glass, 12" x 12"

Tools and Materials

1/8"-Thick Ceramic Fiber Paper
Carbon Paper Design Drawing
Box Cutter or Stencil Knife

Optional Materials for Extra Decorations

Fiber Paper Shallow Mold
Thick Kiln Wash Paste
Cake Decorator

Prepare the design you have chosen and transfer it onto the fiber paper.

1



Cut the fiber paper to size. You can use any thickness you prefer. This project was done with 1/8"-thick ceramic fiber paper.

With the smoothest side of the fiber paper facing up, place the carbon paper on top of the fiber paper. Prepare a drawing of your desired design and place it on top of the carbon paper.

With pen or pencil, draw along the pattern lines to carbon the pattern onto the fiber paper. Press firmly to be sure it transfers the pattern. You may have to hand draw some parts of lines after you're finished that didn't completely transfer through to the fiber paper.

2
With a box cutter or stencil knife, cut out the parts of the pattern you want to be embossed.



Cut with a smooth, even pressure the same as you would when you are cutting glass. Leave pieces between the cutouts that are at least as wide as the fiber paper thickness. Be careful not to cut out so much of the stencil that it won't stay in place.

3
Place the stencil on the kiln shelf.



4
Place the glass on the stencil and fire the project.



The project shown here was done with a layer of clear glass capped with a layer of amber glass. If you choose to use a single layer of glass instead, fire to 1360°F tack fuse temperature and hold for 20 minutes.

When firing a single layer, you don't have to use fuse-tested glass, which will allow you to use lower cost art glass. Firing to a lower temperature also produces a less pronounced embossing with more subtle variations. If you fire single layer glass to higher full fuse temperatures it will distort badly, since the glass migrates to become 1/4" thick.

Firing Schedules

For a single layer firing use the following schedule, remembering that you may need to make adjustments to fit your own kiln, since they all fire differently.

- Segment 1: Ramp 500°F/hr to 1000°F and hold 20 min.
- Segment 2: Ramp 850°F/hr to 1360°F and hold 20 min.
- Segment 3: Ramp 9999 (AFAP*) to 960°F and hold 60 min.
- Segment 4: Ramp 500°F/hr to 300°F and OFF.

*as fast as possible

For a double glass layer you can fuse and emboss in the same firing. Fire to a 1460°F full fuse and hold for 20 minutes. The firing schedule used was as follows.

- Segment 1: Ramp 400°F/hr to 1000°F and hold 20 min.
 - Segment 2: Ramp 150°F/hr to 1175°F and hold 10 min.
 - Segment 3: Ramp 850°F/hr to 1460°F and hold 20 min.
 - Segment 4: Ramp 9999 (AFAP*) to 960°F and hold 60 min.
 - Segment 5: Ramp 400°F/hr to 300°F and OFF.
- *as fast as possible

COE 96 glass was used for the project shown here. For COE 90 glass, use the same schedule, but in Segment 3 take the temperature up to 1480°F. For clear float glass or clear textured architectural glass, use the same schedule, but in Segment 3, take the temperature up to 1500°F.

Slump & Fuse, Extra Decorations, and More Texture

If you use a fairly shallow mold, you can do the slump & fuse/emboss in a single firing. Use the same schedule as for a single or double layer.

For extra detail, you can add small strips of ceramic fiber paper, chopped up bits of fiber paper, or a thick kiln wash paste. A cake decorator works well to apply kiln wash paste. Any material that will tolerate the firing temperature and won't stick to the glass can be used to create texture.

GPO

Dennis Brady has been a full-time professional glass artisan since 1980 and currently works with stained glass, fusing, casting, glassblowing, and sandblasting. He has authored and published six books of stained glass patterns plus A Lazy Man's Guide to Stained Glass. Along with his sons, Dane and Jason Brady, he operates several companies.

DeBrady Glassworks produces glass art; Victorian Art Glass sells tools, equipment, and supplies; and Master Artisan Products manufactures molds and tools for glass artisans. He has also created the website Glass Campus, which offers over 100 tutorials and videos teaching numerous glass art techniques as well as tips on how to make a living as a glass artisan.

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



Getting It All Together

Tips for Making an Adjustable Tool Organizer

Design, Demonstration, and Text by Susan McGarry

If you're like me, I have more tools than I know what to do with. I found it difficult to find my tools when I needed them, so I designed this handy little organizer. It works well for my tools, but feel free to make adjustments to fit your own particular needs.

When your tool needs change, this tool organizer is easily adjustable. You will have a place for every tool, and every tool will be in its place. Now that you know where every tool is, you'll have more time to create glass pieces.



Tools and Materials

Wooden Box, 14" x 10-3/4" x 4"

White Corrugated Plastic Sheet,
13-1/2" x 10-14" and 20" x 30"

White Acrylic Craft Paint Rubber Gloves

White Duck Tape® Decorative Duck Tape®

Foam Paint Brush Scissors or Razor Knife

1

Gather the supplies you will need to make your tool organizer.



You should be able to find everything you need at your local craft store.

2

Use the foam brush to paint the inside and outside of the wooden box with white acrylic paint.



To save your manicure, wear rubber gloves while you paint. Wait for the paint to dry before continuing, which shouldn't take more than an hour. You can skip this step, but it will be easier to clean later.

3

Cut the pieces of corrugated plastic sheet to fit the bottom and sides of the box.



Use the scissors or razor knife to cut the corrugated plastic sheet 13-1/2" x 10-1/4".

Next cut 2 pieces to fit the inside of the box on the longer side that are approximately 13-1/2" x 3-3/4". Cut 2 evenly spaced slits in each piece. These slits need to be the thickness of the plastic sheet, which is approximately 1/4", and only cut halfway down, which would be approximately 2".

4

Cut the pieces for the shorter sides of the box, then cut slits in the pieces.



Cut 4 identical pieces of the plastic sheet approximately 10-1/2" x 3-3/4" that fit the inside of the box on the shorter sides. Next cut 8 evenly spaced slits that are approximately 1/4" wide and are only cut halfway down, approximately 2".

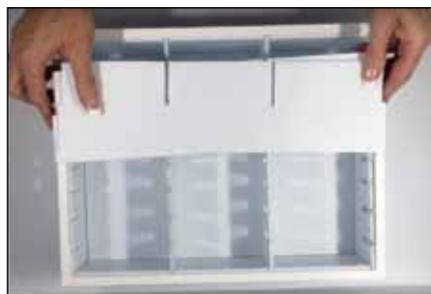
5
Trim a small indentation from each end of the pieces so they will fit snugly into the slits that are already inside the box.



6
Place the 4 pieces in the box with the slits facing up.



7
Cut the cross pieces that will be added at 90-degree angles to the already installed pieces, then cut the slits.



Cut 8 pieces that are exactly the same size, approximately 13-1/2" x 3-3/4". Cut 2 evenly spaced slits in each piece. These slits should be the thickness of the corrugated plastic, which is approximately 1/4", and only cut halfway down, approximately 2". These slits should line up with the slits in the pieces that were cut in step 4.

Use the white Duck Tape to cover the top edge of each piece. The tape isn't necessary, but the pieces will have a more finished look when covered.

8
Slide each of the 8 pieces into the slits of the 2 pieces that were installed in step 4.



This will create 27 little compartments for your tools. These compartments can be easily modified to create smaller compartments, if desired, by cutting more pieces with slits. As an optional step, the outside of the box can be easily decorated by adding decorative Duck Tape.

GPO

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Olympic Kilns	(800) 241-4400 www.GreatKilns.com	59
Paned Expressions Studios	(410) 676-1248 www.PanedExpressions.com	31/59
Paul Wissmach Glass Co., Inc.	(304) 337-2253 www.WissmachGlass.com	80
SGAA	(800) 438-9581 www.StainedGlass.org	27
SilkeMat™	(336) 580-7063 www.SilkeMat.com	55
Skutt Kilns	(503) 774-6000 www.Skutt.com	2
Unique Glass Colors	(407) 261-0900 www.UniqueGlassColors.com	61
Whittemore-Durgin	(800) 262-1790 www.WhittemoreDurgin.com	31



CALL OR EMAIL FOR MORE INFO!

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INTRODUCING **THE GLS17** **CLAMSHELL KILN**

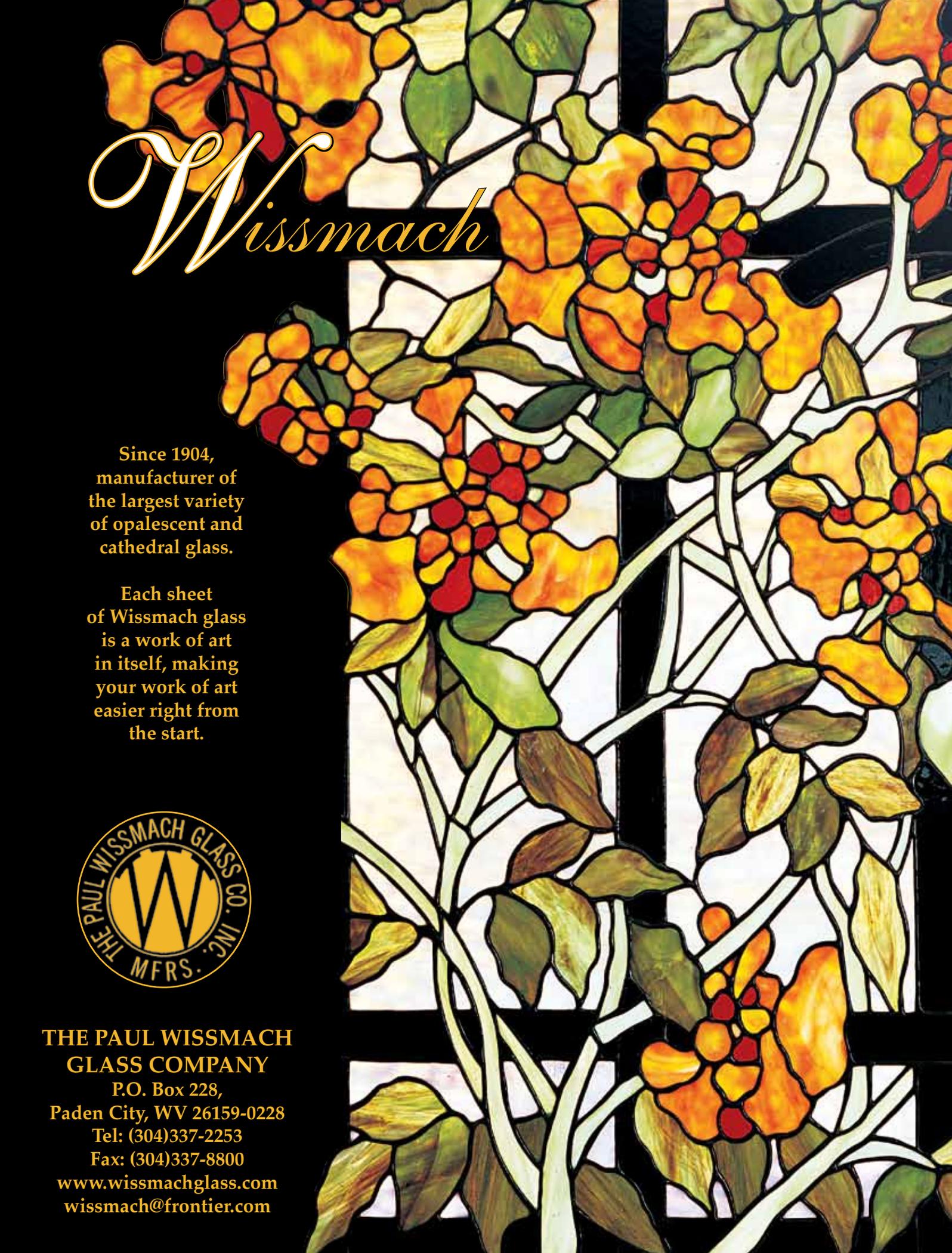
The GLS has an interior dimension of 17 x 17 x 13.5 inches and a max temp of 1800 degrees Fahrenheit. The kiln includes a 15-inch square ceramic shelf and 4.5-inch posts. This kiln comes standard with the user-friendly Cress Digital Controller. Cress believes in long-lasting, dependable, and easy to use units. For that reason, the GLS17 comes standard with a built-in moveable stand and spring assisted lid plus elements mounted on the top side in quartz tubes for a greater number of firings!



- Quartz tubed elements mounted on an upper high-temp fiberboard!



- Easy to move lockable wheels for ease of positioning!

The background of the entire page is a detailed stained glass pattern of flowers and leaves. The flowers are primarily in shades of yellow, orange, and red, with green leaves interspersed. The pattern is set against a dark background, possibly black or dark brown, which makes the colors of the glass stand out.

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