Seahorse

Text and Demonstration by Kimberly Affleck
Photography by Keith Hobbs

Effetre Glass
266 Opal Yellow
219 Copper Green
254 Purple
236 Dark Turquoise
066 Intense Black
081 Dark Transparent Lavender
080 Transparent Lavender
058 Ink Blue
036 Dark Aqua
Clear (Stringer)
Precision
Diamond Clear
Dichroic Strip
"Corkscrew" on Clear
Reichenback
R-39-C Copper Blue
R-8-C Yellowish Aurora
R-21-C Lemon Yellow
R-74-C Granny Apple Green
R-47-C Aquamarine Blue
Kuglar
K-06 Reddish Aurora
Miscellaneous Glass
Reichenback Colors
Precision Colors
Tools and Materials
Stump Shaper Tweezers
Torch Marver Jim Moore Snips
Jim Moore Cushion Masher
Bare Mandrel Foster FireBead Release
3/32" Mandrel B&B Liquid Etchall®
Elmer's® White Glue
Rubber Gloves Safety Goggles
Bethlehem Barracuda Torch
Torch Settings
Oxygen 15 psi
Propane 4 ps1

There is a short story behind this design. I was using the twisted canes to make what I was calling "Dragon Beads." These are long, thin beads with a twisted cane applied in a random design, then heated until the twisted cane spreads and makes a wonderful reticulated design suggestive of ammonites, weird worms, or fossils. The pattern created suggested something else to me, but I could not figure out just what it was. It really drove me nuts for a while, but I kept making Dragon Beads.

Seahorse Story

About four years ago my parents decided to move into a much smaller place, and they sent me all of the things I had left behind. In one of the boxes they sent, I found a small plastic vial that I had brought back from Mexico when I was about six or seven years old. Inside the vial were several items floating in glycerin—some seashells, some rocks, a tiny starfish, and a dried seahorse. As soon as I saw that little seahorse, I knew that this was the design that was trying to speak to me.

I began by trying to make them flat, but the first ones ended up looking as if they came up from way too deep, way too fast! I then started putting them on bicones. This worked pretty well, and it was kind of cool to have to turn the bead to see the entire design. Kathy Johnson, the maker of beautiful horse beads, told me, "I want to see the entire thing all at once!" I went back to flat beads, and after a whole lot of trial and error I came up with this basic design.

The seahorse beads I make now are done with raked, twisted canes. I generally make a large, flat bead for a canvas. I have used barbeque mashers and a crunch press to make core beads for the seahorses. The beads made with these usually start out with a long, thick, well-shaped tube bead. Most of my seahorse beads are made with a Cattwalk Crunch Press.

For this tutorial, I decided to use Jim Moore's Cushion Mashers. This tool allows me to make a core bead that is more random in shape and lends itself to some creative shaping at the end.

Twisted Canes

1

First, make a gather on the end of a mandrel. Get the tip of the mandrel really red hot about 1/4" from the end. Then heat your glass and apply it to the end of the mandrel. The gather should be about the size of the average red grape. I am using Opal Yellow for the core of this twisty.

2

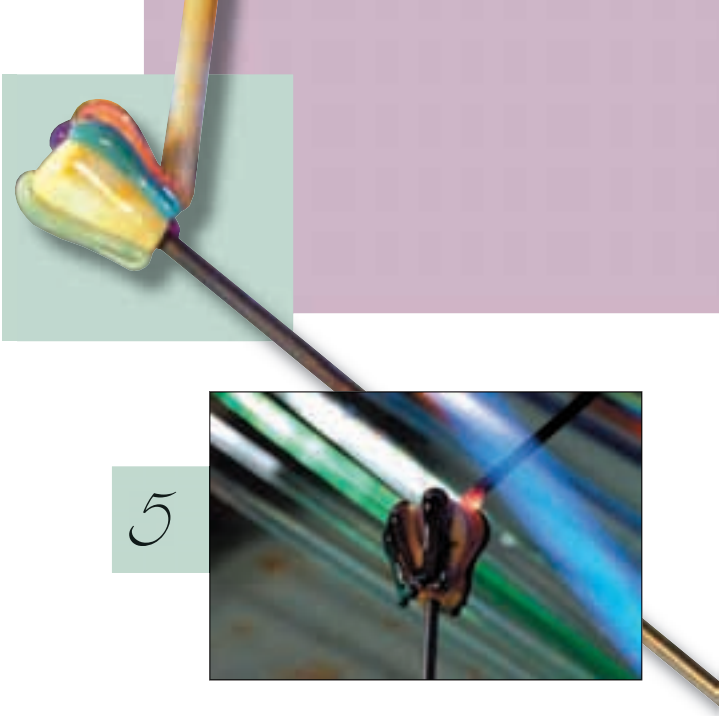
Marver the gather into a cone or cylinder shape. I use a torch marver most of the time.

3

Now add a little color. I added one large stripe of EDP, a small stripe of Turquoise, and one large stripe of Copper Green. Keep the core a little cool so it doesn't distort when you add your stripes of color.

4

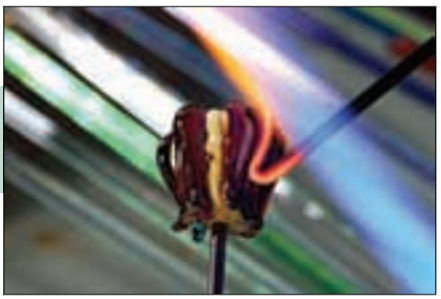
Fill in between the stripes of color with more of your core color—in this case, Opal Yellow.



5

Since this cane is going to be twisted very tightly and pulled quite thin, I add a little bit of furnace glass to intensify the colors. I used Reichenbach Yellowish Aurora on top of some of the Opal Yellow, Reichenbach Copper Blue on top of the Copper Green, some Kuglar Reddish Aurora on top of the EDP, Reichenbach Lemon Yellow on top of some of the Opal Yellow, and Reichenbach Copper Blue on top of the Turquoise. I add very thin stripes. To keep them thin, ***push*** the stripe on, starting at the thick part of the gather and pushing toward the mandrel. You don't need much of this glass.

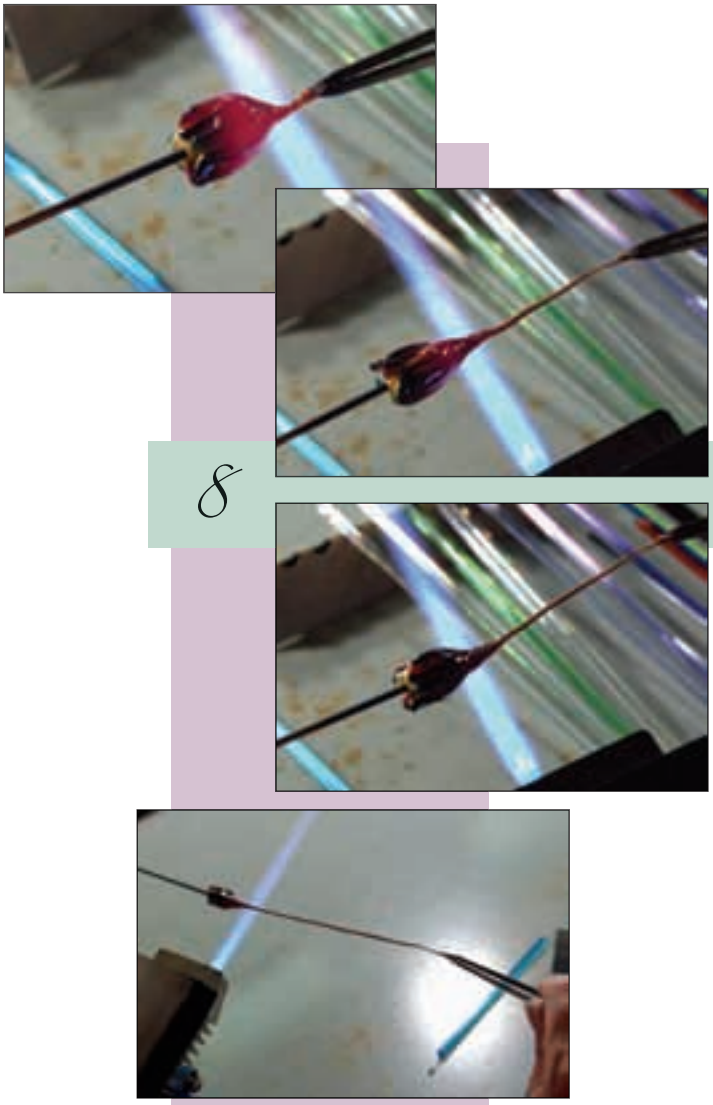
6



Add some thin stripes of Intense Black. They are not evenly spaced, but they are rather thin. Push them on just as you did with the furnace colors. I added five to six stripes of Intense Black.

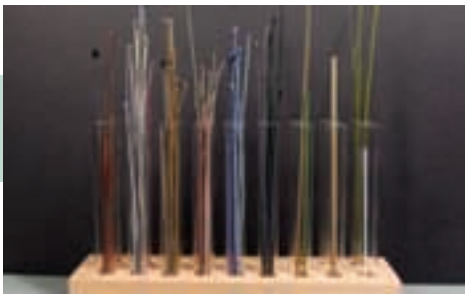
7

Heat your gather until everything is starting to melt. It doesn't have to be smooth and can even have big bumps.



8

Allow the gather to cool a little bit, then heat gently in the flame. Grasp the end of the gather with some tweezers, pull out a bit, then begin to twist rapidly with the hand holding the mandrel while you very slowly pull out the twisty with your other hand. (The mandrel will help you do this.) Keep flashing the gather in the flame, then out, in, then out to keep the gather just hot enough to pull. This takes some practice, but you will eventually get a very tightly twisted cane. I like to make these canes about the diameter of a darning needle, no larger than about 3 mm and 8" to 12" long.



9

I generally make several different canes to use on the seahorse. Each seahorse has three different opaque canes and one transparent cane. I like to have a light, a medium, and a dark opaque cane for the body. I get different canes by using different colors for the cores and differing amounts of colors in the stripes. You can use any colors you like, but the softer opaque colors seem to work best. I try to keep a good supply of different twisted canes on hand.

A transparent cane is for the "fins" of the seahorse. I often use a cane built with Rubino wrapped in silver leaf with Intense Black stripes or a cane made with one or two of the transparent silver colors, reduced and partially encased with stripes of clear, with several Intense Black stripes. These transparent canes are built in the same way the opaque canes are built.

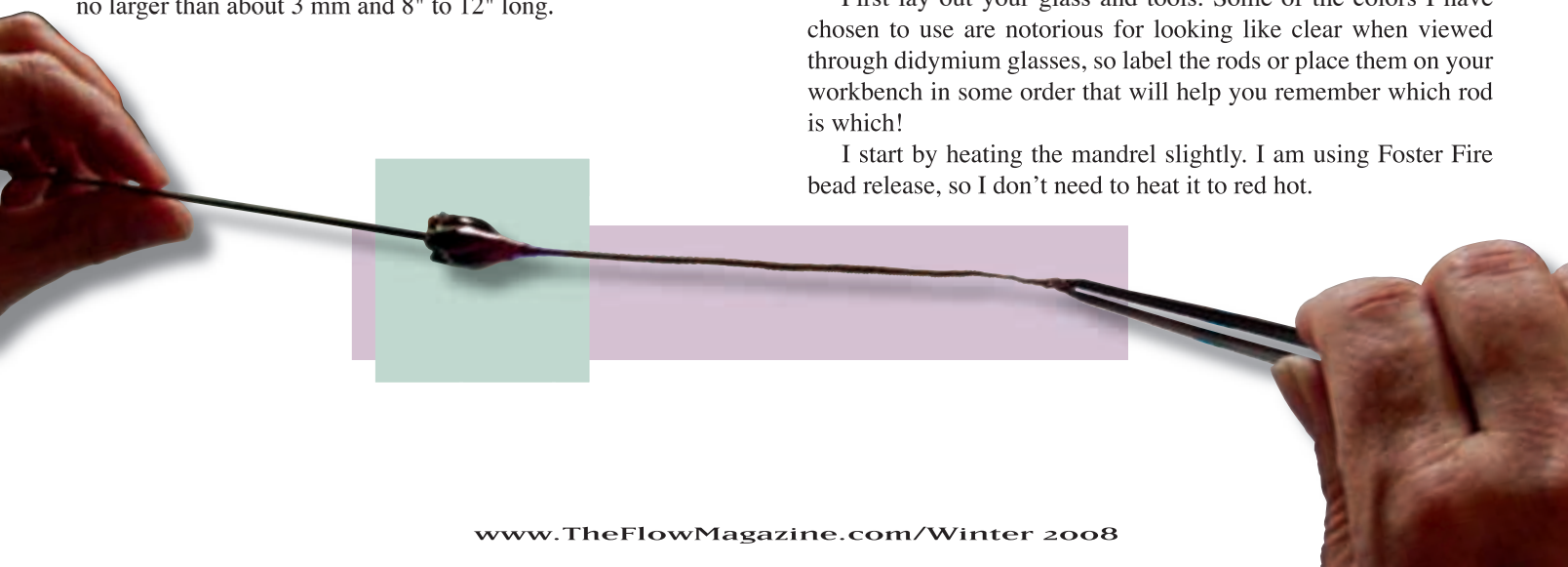
Core Bead

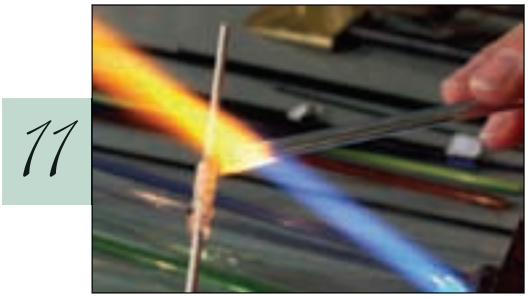
The core bead for any design is very important. It will be your canvas, so take care when you build it. For this bead, I decided on a core that utilizes Ink Blue, Dark Transparent Lavender, Pale Lavender Transparent, a little bit of Dichroic glass, and clear.

10

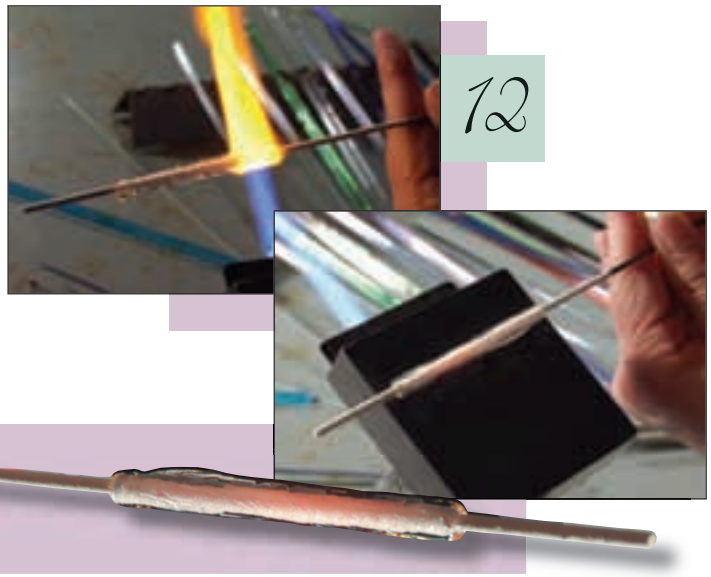
First lay out your glass and tools. Some of the colors I have chosen to use are notorious for looking like clear when viewed through didymium glasses, so label the rods or place them on your workbench in some order that will help you remember which rod is which!

I start by heating the mandrel slightly. I am using Foster Fire bead release, so I don't need to heat it to red hot.

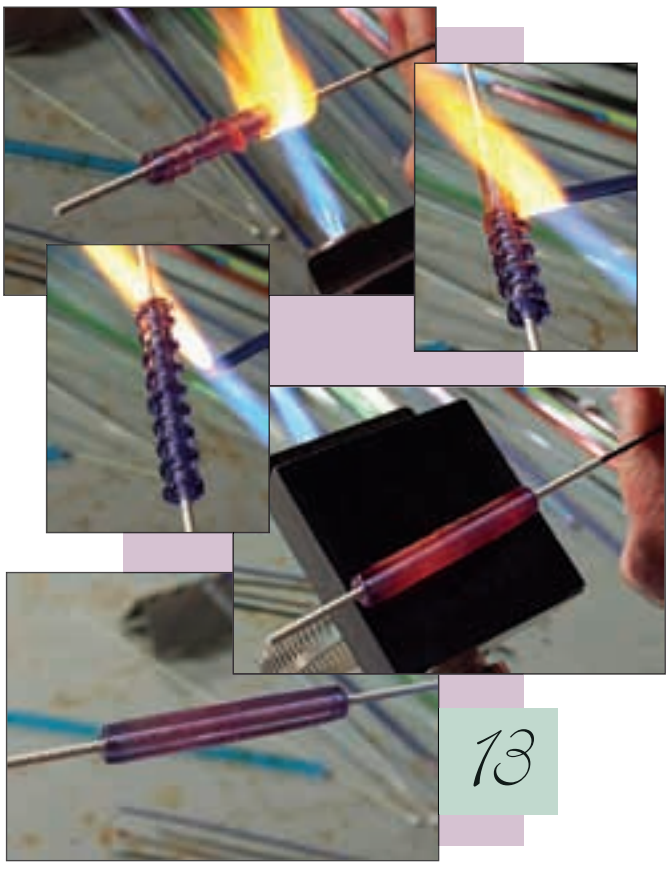




To begin, lay on a couple of layers of clear glass. Make the initial footprint a little bit shorter than you want the finished bead to be.



After applying the clear, heat it and smooth it to make it ready for the next layer.

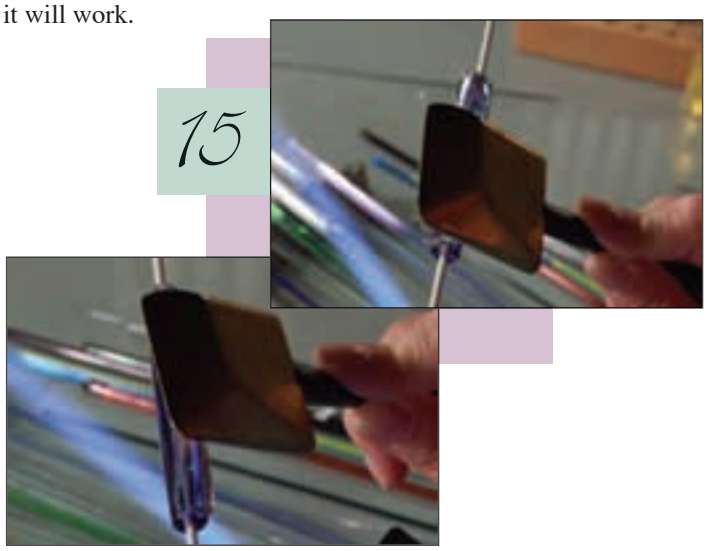


Add a layer of Ink Blue, followed by a layer of dark Transparent Lavender. Heat and smooth, marvering the bead into a rough tube bead. It doesn't need to be perfect, just smooth and fairly even.

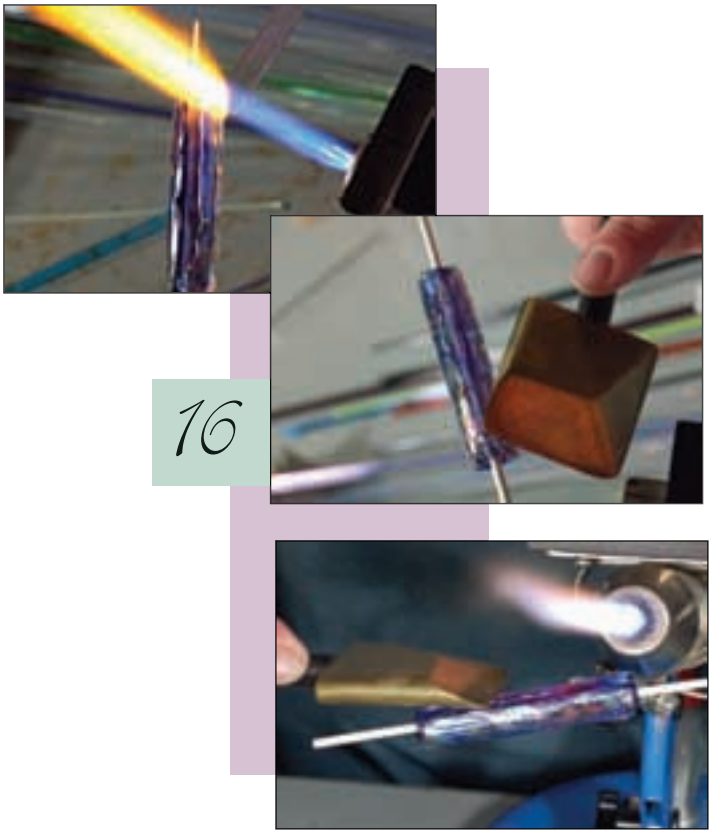
Now you are ready to add the dichroic glass. I am using a dichroic glass called "Corkscrew." This dichro was recommended to me by Patty Frantz, who definitely knows her dichro! It is a multicolored dichroic on clear glass. This dichro is user-friendly and seems to look great on almost any color.

To add the dichro, be sure the core bead is hot, then focus your flame a bit and heat the nondichro side of the dichro strip. If the flame touches the dichro side, the dichro will fry and you will lose all of the wonderful color.

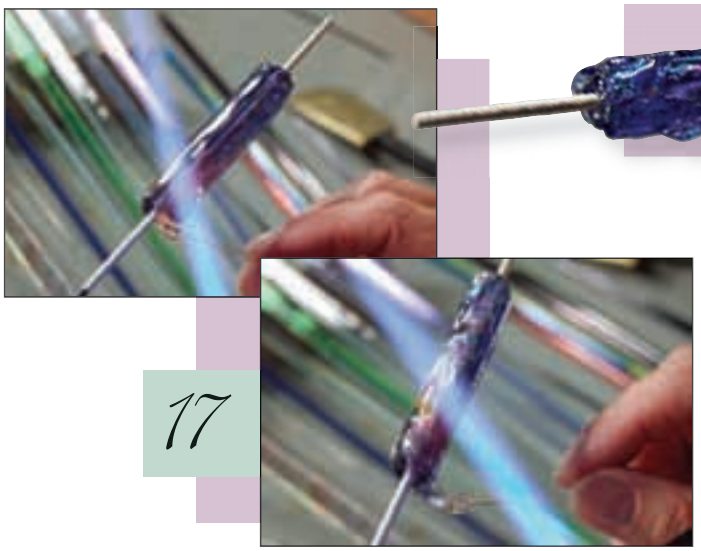
Heat about the last 1/2" of the strip until it begins to soften, then press it onto the bead, dichro side down, heating the rest of the strip as you go. It is a little tricky to do, but if you are patient, it will work.



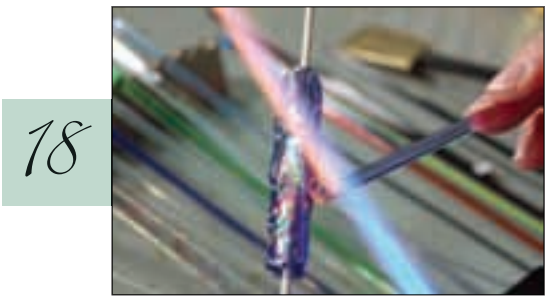
Continue to apply the strip all the way to the end of the bead, then burn it off. Gently heat the edges of the dichro, and then mash them into the core bead using a Stump Shaper or other tool. This is to protect the dichro edges.



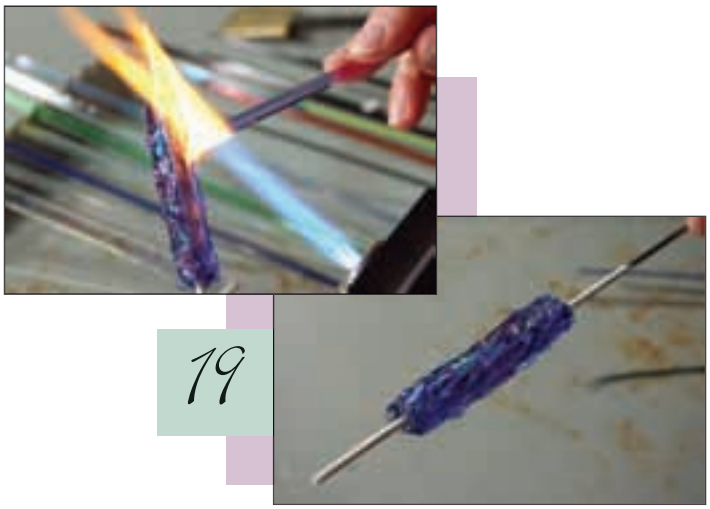
Now apply another strip of dichro in the same way as you did the first, mashing the edges down with the Stump Shaper. I only applied two strips of dichro for this bead and did not cover the bead entirely, but you can use as many as you want, or even overlap the dichro strips for a lot more sparkle. Just be sure to never hit the dichro itself with the flame and always heat and mash down the edges to protect them.



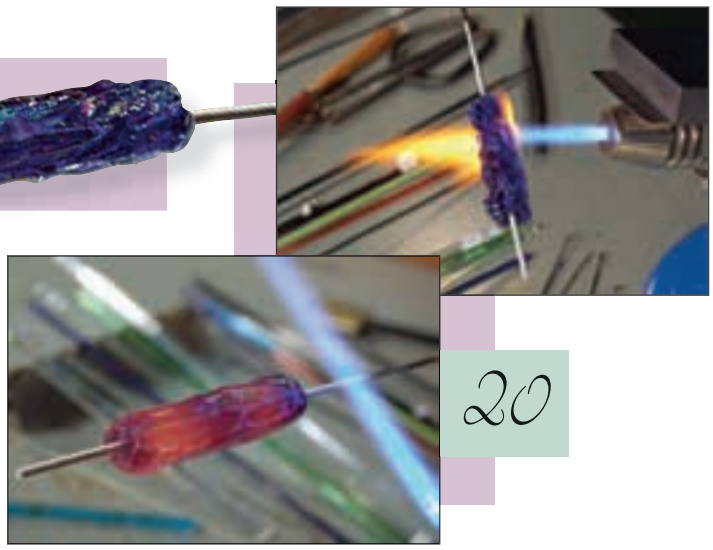
After you have applied the dichro, go back and remove some of the clear glass backing and any burnt dichro. Use a clear stringer to do this. Heat the glass you want to remove, then use the cold stringer and scrape off the hot glass. This is a great way to remove scum and really helps the dichro to shine through. Sometimes I remove almost all of the clear glass that backs the dichro, leaving only enough to protect the dichro coating.



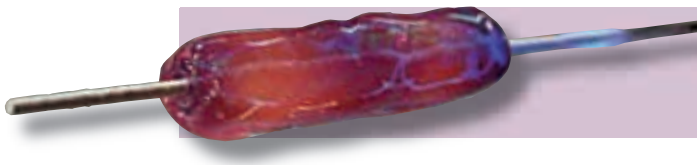
Go over all of the dichro edges with a little bit of Pale Transparent Lavender. This will insure that the dichro edges are protected.



Add more Pale Transparent Lavender randomly over the surface of the bead. Don't worry too much about the shape of the bead. It is more or less even, and that is what counts with this bead.



After you have added a layer or two of Pale Transparent Lavender, heat the bead to smooth out the glass. Some areas are thicker than others, and you can leave them that way. Marver the ends a bit to be sure they are relatively even.



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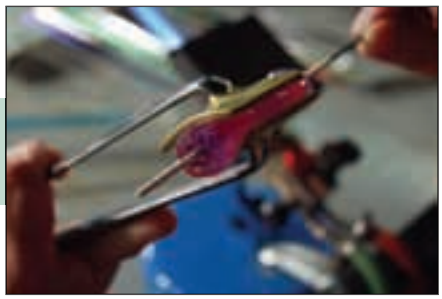


When the glass is smooth, it is time to press the bead. Heat the bead up to a dull orange. Get the glass plastic, but not liquid. Then position the bead in the press—in this case, the Jim Moore Cushion Press. The bead is much larger than the press, but because the press is open-ended, this does not present a problem.

Press once in the middle.

22

Heat the bead ends, then press a second time at one of the ends.

23

Heat the other end and press a third time.

24

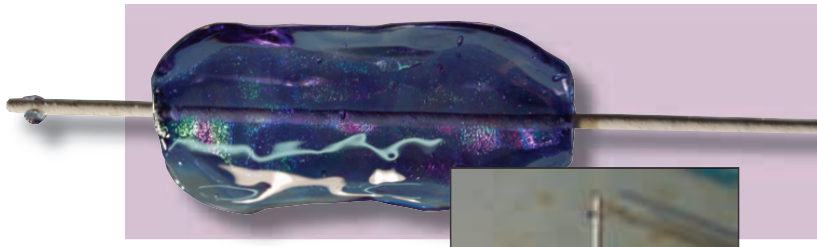
You now have a rough canvas for your design. Add some heat at this point and remove most of the chill marks.

25

Add some extra glass to the bead to make the shape a little less symmetrical.

26

Heat the bead again to melt in the extra glass and get a good heat base.



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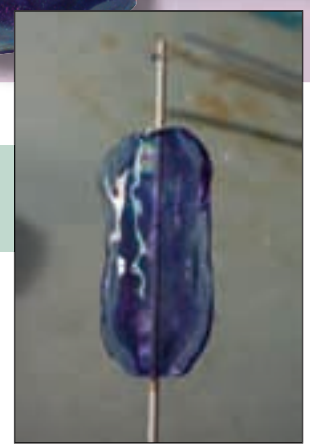
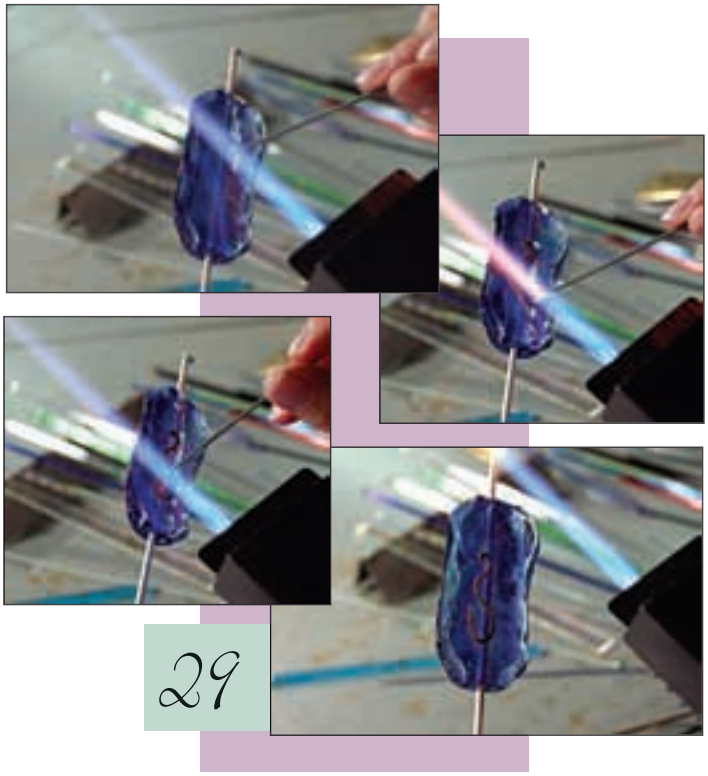


Looks pretty weird? Great!! Now for the seahorse. Decide which side looks the best. This will be the back of the bead.

28

Select which twisted canes you wish to use. I generally use three opaque canes—a dark one, a medium, and a light cane. I also use a transparent cane for the fins, making a total of four canes.

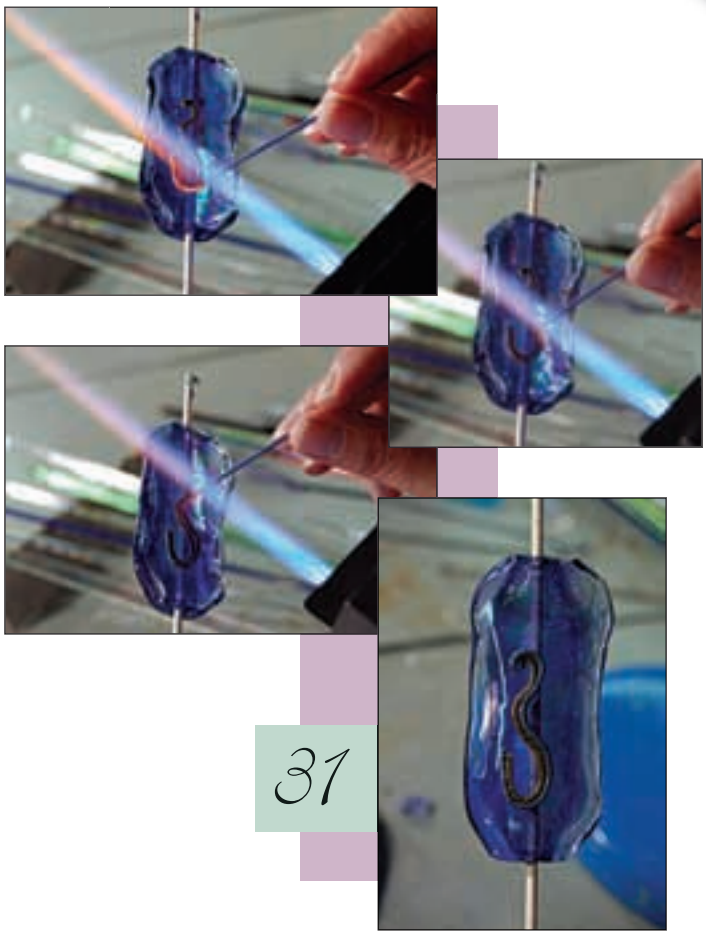


29

I begin the seahorse with the dark or medium cane. Start at the head of the seahorse, then the neck, the belly, and the tail. The shape is sort of a stretched out "3." Apply the cane gently to the side or underneath the flame. Do not push on the cane too much, as it is brittle and will break easily.

30

Immediately get some heat in the bead, but do not heat the twisted cane too much. Heat it just enough to be sure that the cane has adhered to the bead.



31

Apply the next cane right next to the first cane. Start at the tail for this one. Again, be gentle with the cane!

32

The third cane is the lightest cane. It gives some nice contrast to the body. Start at the tail again and apply the cane right next to the previous two canes.

33

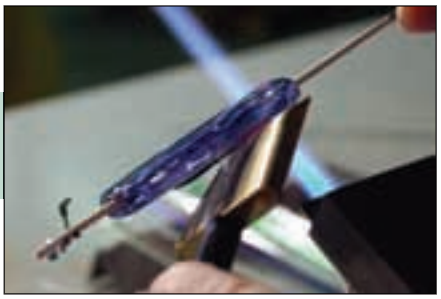
Get some heat into the bead and heat the canes lightly.

The fourth cane is the transparent cane. This is the fin of the seahorse. Although in nature seahorses don't have a fin that runs the length of their bodies, I really like how it looks in this design. I used a little Precision glass in this cane, because it can give some really pretty, subtle blue and green lines that look very finlike.

34

I usually begin at the tail and apply the cane about 1/3 of the way along the body. Then I do the same thing beginning at the head. This leaves a gap where the dorsal fin will eventually go. In between each application of one of the twisties, I apply heat to the bead.

35



I apply some heat to all of the canes and use the Stump Shaper to "freeze" them in place.

36

Apply a dot of one of the furnace glass colors to the cheek of the seahorse. I used Reichenbach Aquamarine Blue for this one.

37

Heat the cheek dot well and mash it flat.

38

Focus the flame down a little and heat the front part of the belly. Apply enough heat to get the twisty to break up on the surface and begin to spread. You want the twisty to spread into a nicely curved shape. If the twisty gets too thin or you don't like the effect, add another layer of twisty over the top.

39

When the belly has spread, heat the head area and then press it again with your marver to flatten and round it out.

40

It is time to add the dorsal fin now. This is pretty simple. It is just a tiny pyramid of stacked twisties. Use the same colors you used in the body and put them on in the same order as they were applied to the body. The twisty next to the body is the shortest, with the other twisties getting longer as I add them on. When they are all applied, heat them gently and then marver them flat.

43

The first rake creates the cheek spine. Heat the head area and then heat where you want the cheek spine to go. Rake firmly and rapidly with the cold stringer. In the photo, the orange areas indicate where the glass is hottest. This is where you will be raking.

41

Here is how he looks so far.

44

Apply the nose now. Use a piece of one of the latticino pieces used for the body. Apply a short piece to the head, then heat it and marver it flat.

42

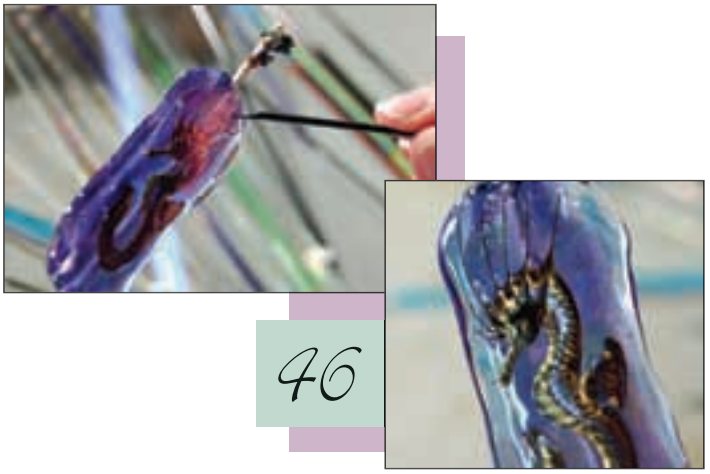
Get some heat into the bead! Heat from the back only!

Most of the rest of the seahorse is done by raking. I use a stringer of Intense Black to rake with. I do not use a tool for raking in this design, as it tends to move too much glass. The stringer of Intense Black is very stiff and leaves a thin, black line, which makes the spines of the seahorse look very spiky. I heat the end of the stringer and pull it thin to create a raking "tool." I do this as often as I need to, sometimes for each rake that I do.

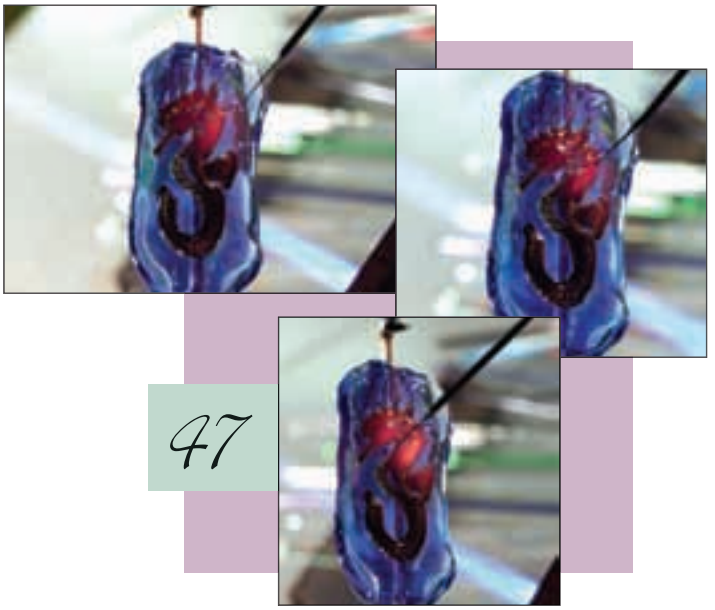
45

With the Intense Black stringer, rake the nose piece into the head. This takes three rakes—one rake under the cheek, one rake over the head, and one rake through the cheek area. This helps to make the nose look as if it belongs to the seahorse.

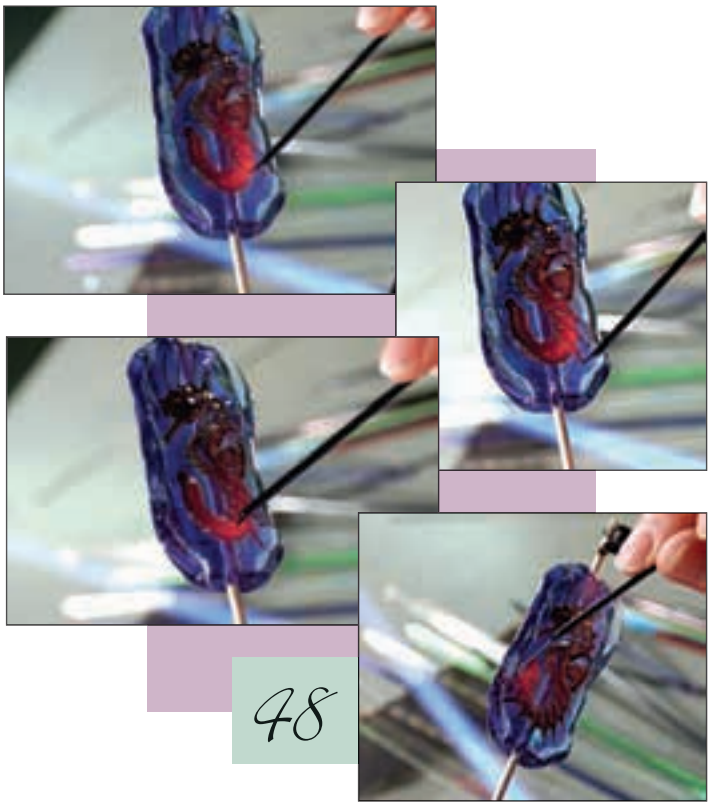
Now make the rest of the rakes on the body of the seahorse. Heat the area you want to rake and then heat where you want the rake to go. Make sure that your stringer tool is the shape you want and be careful to keep heat in the bead to prevent cracking. Most of the heat has to be put into the back of the bead. If the front is heated too much, the design will be ruined.



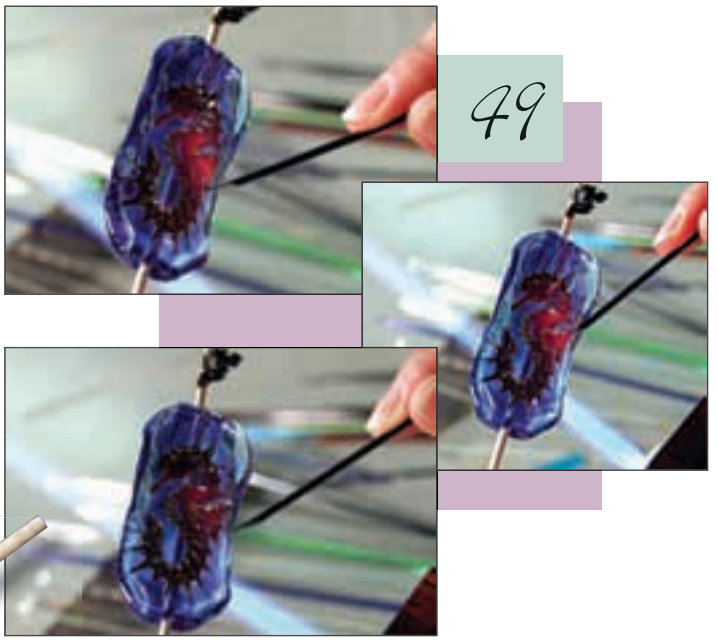
Start raking at the head of the seahorse, heating where you want to rake and heating where you want the rake to go. This seahorse received five raked spines for the head plus a couple of little eyelash spines.



Make the rakes for the neck spines. Be careful to not heat too much when you get near the dorsal fin.



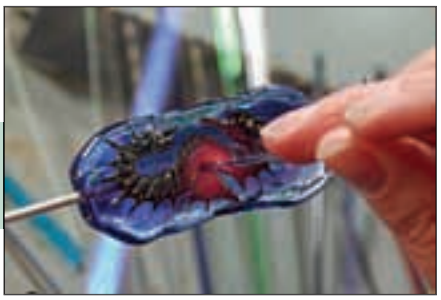
Finish with all of the raked spines on the tail portion.



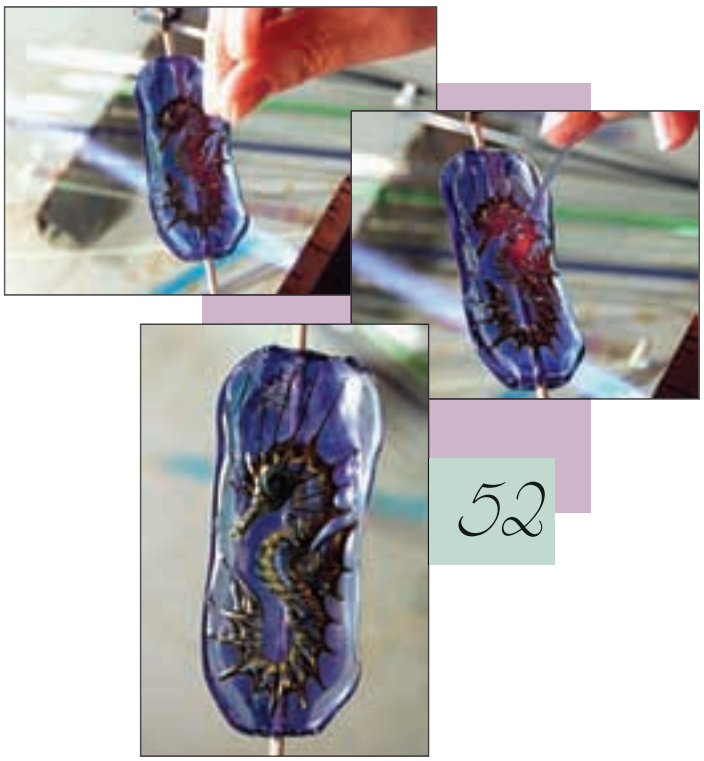
The dorsal fin gets three raked rays—one on the top of the dorsal fin, one on the bottom of the dorsal fin, and one through the middle. It makes kind of a trident.


50

Go back at this point and touch up any of the spines that might need it and make the mouth of the seahorse. Seahorses are related to trumpet fish and pipefish, and they have the same kind of trumpetlike nose. So just pull a little bit of glass out on the top and the bottom of the nose with a cold stringer. You may have to go back later and touch it up.


51

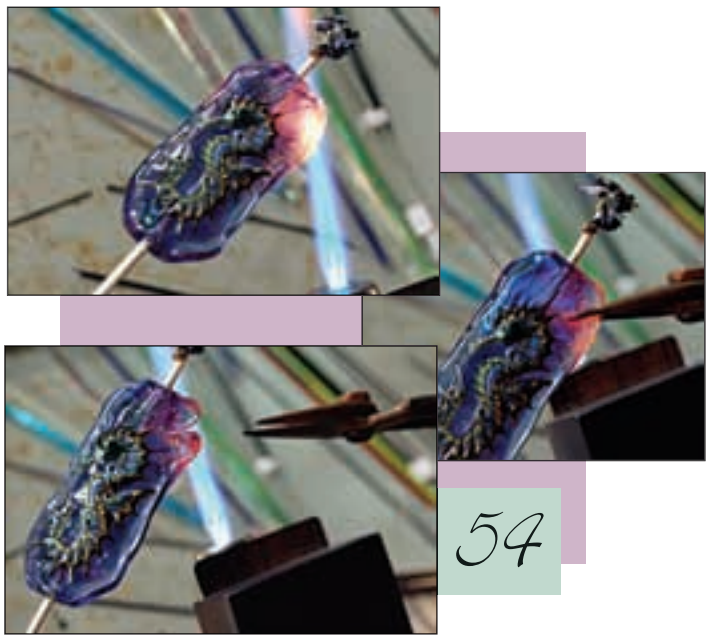
Take a thick stringer of one of your transparents and make a twist where the dorsal fin attaches to the body. Heat the area, plunge in the stringer, and give it a half twist.


52

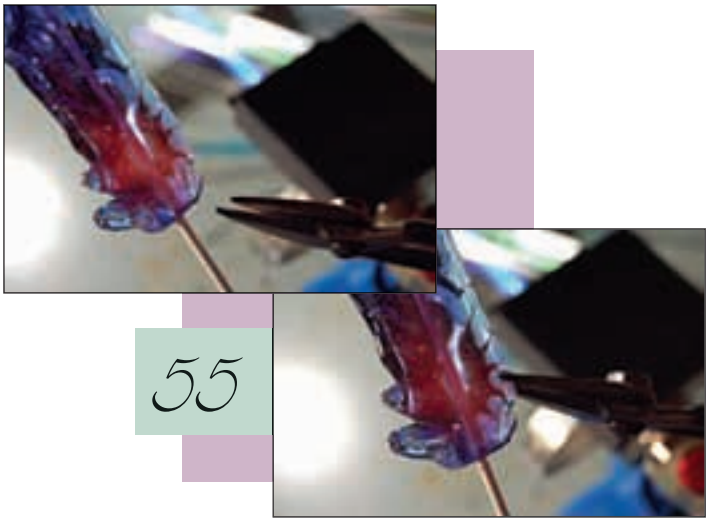
Put another twist in the cheek of the seahorse, below the belly of the seahorse, and on top of the belly under the head.


53

It is time to apply some of the eye of the seahorse. Use a small gather of Copper Green and apply it to the top of the nose of the seahorse. Heat the dot gently and press it in with your marver. Then apply a small dot of transparent Aqua over the Copper Green dot. The Aqua should cover the Copper Green completely. Heat gently and use your marver to push the eye in a bit. The eye is not yet complete, but you need to do some other things before you complete the eye.

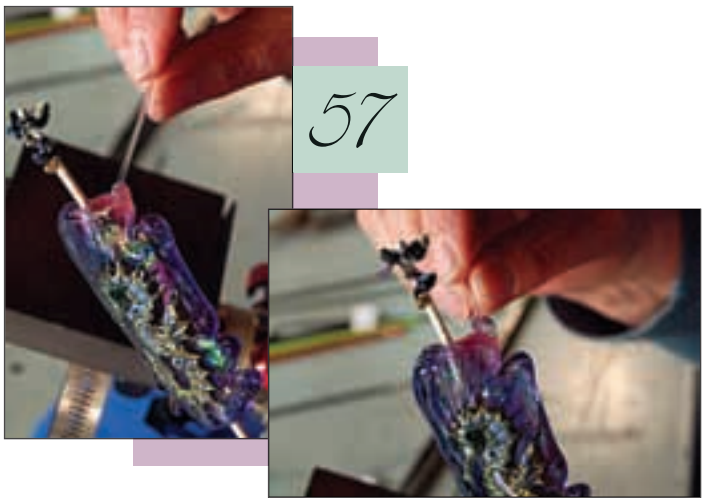

54

Heat up an area on the edge of the bead that does not have any design on it. When it is good and hot, cut into the glass with your snips. Do not cut into the design.

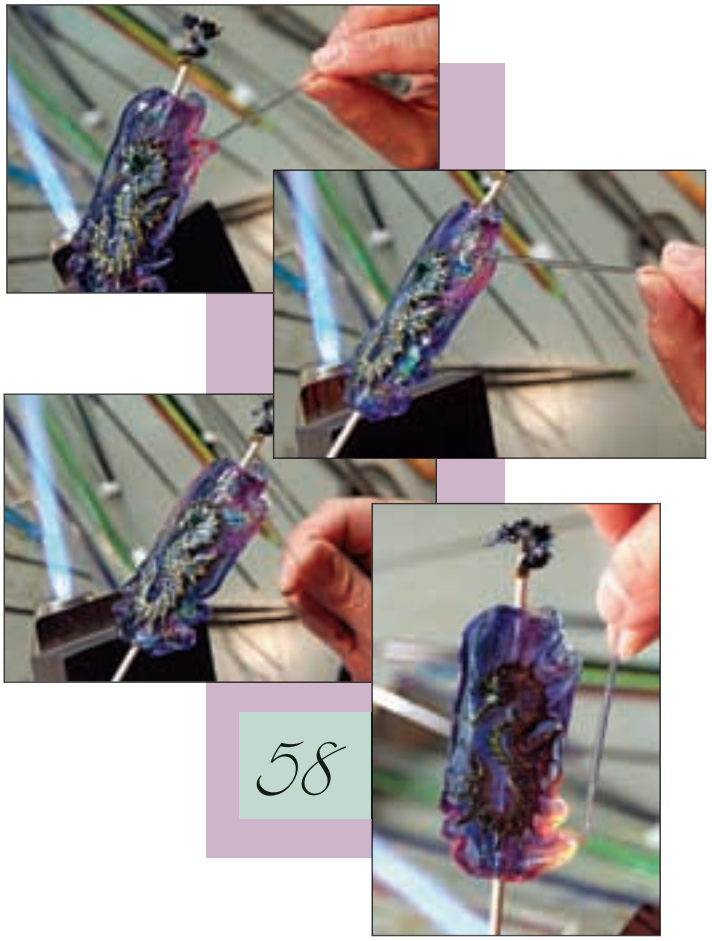


Do this several times around the bead. Try to place these cuts very randomly.

After you have several cuts, be sure to get heat into the rest of the bead (from the back only) and heat up the cut edges.



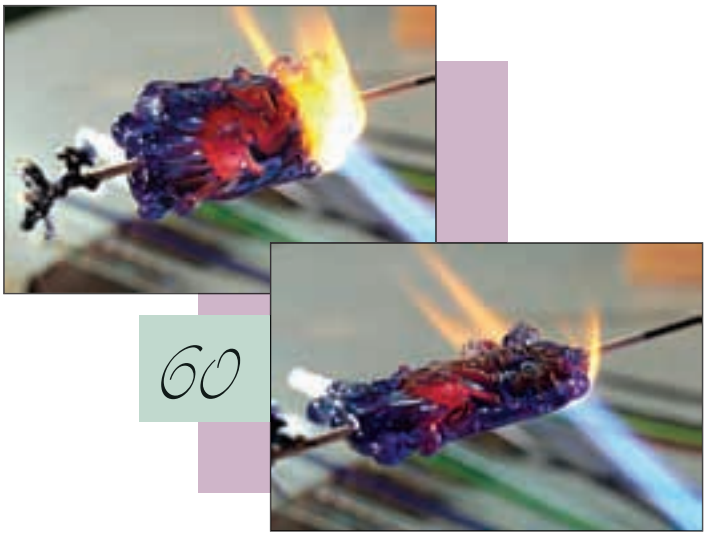
Heat one of the "fingers" formed by your cuts until it is a dull orange. Come out of the flame and catch the hot end of the finger with a thick stringer of Pale Transparent Lavender. Hesitate for a few seconds to allow the glass to cool a bit, then pull gently, twisting and curling the glass with the stringer.



Do this for each of the fingers created by your cuts. Twist and pull and curl in different directions if you wish, or all in the same direction. Whatever you think looks good.

Get some good heat into the bead, including all of the curls and twists. Be sure to heat only from the back!

Now go back and finish the eye of the seahorse. This is the point where the personality of the seahorse shows up!!! Just use a small dot of Intense Black for the pupil of the eye. Get a tiny gather of the black and then heat up the eye, apply the dot, and burn off.



Get some good heat in the entire bead, being careful to melt in the pupil and not melt in the raised swirls too much. Then pop into the kiln and anneal.

Finishing Touches

I decided to etch this seahorse. The bead was so transparent and the dichro was so sparkly that the seahorse got lost.

Apply some regular Elmer's white glue to the eye of the seahorse and to the cheek and allow the glue to dry. The glue will act as resist and the glass underneath will remain glossy.

Before using the Etchall, be sure to put on some rubber or latex gloves and safety goggles! The gloves will protect your hands and the goggles will protect your eyes. This is *not* optional equipment.

Immerse in liquid Etchall for about 5 to 7 minutes. Remove from the Etchall and rinse. If the bead has not been etched enough, etch for another 3 to 5 minutes. Then soak the bead in water to allow the remaining glue to dissolve.

Let me give a big thank-you to Frantz Art Glass for allowing me to use their classroom to make this bead, and an even bigger thank-you to Keith Hobbs of Frantz Art Glass for taking all of the photographs and putting up with me! Keith is an excellent photographer and has the patience of a saint. Thank you, guys!!

FLOW

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Kimberly Affleck has been making lampworked beads for about twelve years. She began with a class with Larry Brickman and then continued on with classes from fantastic artists such as Kate Fowle, Jim Smircich, Andrea Guarino, Michael Barley and Lucio Bubacco. Her work tends to be focused on the natural world—stone, wood, feathers, flowers, and water. She loves the patterns found in nature and tries to elicit a sense of the natural word in her glasswork.

In her "other" life, Kimberly is a fish biologist, dam operator, and water treatment operator. It is only natural that she makes glass representations of the creatures that she loves.