

Going Pyro 2

Lampworked Glass – AKA Beadmaking

Lord Sven Carlsson, Barony of the Fenix, Middle Kingdom

Sean@twistedfire.com

How to say Glass

English – Glass, Arabic – Zoogag, Bengali – Sheesha, Bulgarian – Stakio, Castellano – vidrio, Mandarin – Boli, Czech – Sklo, Egyptian – Zuggag, Estonian – Klass, Finnish – Lasi, French – Verre, Fresian – Gles, Gaelic – Gloine, German – Glas, Greek – Gyali, Hebrew – Zchuchit, Hindi – Kach, Iceland – Gler, Italian – Vetro, Latvian – Stikls, Maltese – Hgleg, Romanian – Sticla, Welsh – Gwydr

Sven's Rules of Glass

- 1. Everyone has something to offer the art of glass bead making.**
- 2. It's only a mistake if you fail to learn from it.**
- 3. We are all bad judges of our own work.**

Safety Rules

1. Do not do glass if you are not feeling 100%.
2. Make sure you and your environment are fire safe.
(no artificial fabrics, nothing flammable on the table or floor)
3. Turn off the torch if you are not using it or have to leave it. Even for a moment.

Assumptions

- This class assumes that you have a basic understanding of how to make glass beads.
- That you probably have a torch at home and have been making beads for some period of time and are comfortable with the process.
- That no one is an expert in everything and this class is expected to be more of a guided discussion than a pure lecture.

Topics to be covered

- Core-formed Beads
- Working off the rod
- Millefiori
- Glass sculpture
- Anything else that you want to discuss

Core-formed Beads

Core-formed beads are just what the name implies. Beads created around some kind of a removable core as to create a larger hollow space inside the bead when finished than a simple rod normally provides.

Common methods

- Large diameter mandrels
- Multiple mandrels connected and treated as one mandrel
- Wrapping a mandrel in steel wool and then dipping in bead release
- Creating a clay core on a the mandrel and then dipping it in bead release

Things to remember

- Warm up the core slowly to allow the volatiles to burn off. Otherwise it can bubble your glass.
- Opaque and patterned glass is period and can hide a multitude of problems.
- The core is often very fragile compared to a normal mandrel. Make sure to melt the source glass onto the core and not to pull on the core lest you crack it free from the mandrel.
- Be careful not to crack your bead when picking the material out of the core. Go slowly.
- Cooling/annealing is critical especially when dealing with thin or odd shapes.

Working off the Rod

A lot of artists are stuck on the idea that you have to use a mandrel to create everything. Working off the Rod is the idea that you do not need a mandrel at all.

What you gain

Flexability – you can make it any shape you want.

Multiple attachment methods – Perhaps you want to glue a flat bead to something else or make a pendant. The sky is the limit.

Precursor to making Millefiori

You can move your attachment point as needed. – Inconvenient hold? Move it!

What you lose

Stability – The steel core will not melt or soften.

Guaranteed to have a hole – If you want a bead you're going to have to make sure to remember to put in a hole to string it on.

Suggestions

Start with a dark or large rod (commonly more resistant to heat without deformation)

Make sure your base rod is long enough to keep your hand out of the heat.

Practice a lot of temperature control.

 Pull stringer until you can get it even from end to end.

 Practice making twisties until you can get the twist even.

 Try making glass squares in mid air just with heat control.

Use less heat and move the glass slowly.

Millefiori

Are small cut cylinders of glass usually intricately created that are used to embellish other glass objects. They are created by sculpting a length of glass rod such that the decorations run vertically through the section glass. Once created this glass object is then attached at both ends to other glass rods, heated and pulled out lengthwise. This allows it to retain its complexity even though its overall diameter is shrinking. Once at the correct diameter it is annealed and then divided up into thin slices called Millefiori. One sculpture created this way can yield many slices of Millefiori.

Basic Target Millefiori

Take 2 large rods and create button shapes on the ends of them. Pyrex rods are good for this as they will remain more solid when work working with a higher COE glass. Place them to the side.

Take a black rod and warm the last 1 ½ inches in the flame.

Coat this area in a contrasting color so that you create an even coating of color all the way around it. Make it thick.

Repeat the coating process until you have created several coats.

Take one of the large button ended rods previously prepared and attach it evenly to the end of the working area. Make sure it touches all over.

Flame cut and remove the untouched source black rod.

Take the other large button ended rod previously prepared and attach it evenly to the other end of the working area. Make sure it touches all over.

Evenly heat the working area.

MAKE SURE NOT TO TWIST THE GLASS. ROTATE BOTH ENDS EVENLY.

Also be careful to keep the buttons on both ends warm lest they crack.

When the center is droopy and ready to pull (just like a big stringer) evenly pull your ends apart and the working area will thin down to the desired diameter.

Flame cut off the ends and let it cool and/or put it into the annealer in sections.

When it has cooled/annealed take a pair of large clippers and cut it into ~1/8" disks

You have created Millefiori.

Examining Millefiori with an eye to making your own

When looking at Millefiori examine them with an eye to how you would add each color. Sometimes it would be better to add each color in alternating vertical stripes on the base rod (a star). Other times the best method is to simply not coat the base rod all the way around (the letter C). Remember that each color is a stripe all the way through the working section and not a dot or line. Ask for help. We have all been there..

Sven's Theory of Glass Sculpture

1. Inside to outside
2. Largest to smallest
3. Low detail to high detail
4. If it's too big or complex make it in sections and assemble it as a final step
5. Have a plan before starting.

Turtle Sculpture

Make a large blob of glass and flatten it on the top and bottom to make a flattened oval.

Then add a rim around the top edge to eventually become the rim of the shell.

Then place most of the rough design on the shell (if any).

Add 4 small pegs for legs and a tapered peg for a tail.

Add a larger peg for a head and melt it back a bit towards a round shape.

Touch another glass rod to the "nose" of the head and pull the turtle head into a V shape.

Flatten the head in a V shape the other direction from the nose.

Finish the back and breastplate decoration.

Pinch the very bottom of the feet and turn the resulting flattened sections towards the front and a little outwards.

Add eyes to the head if desired or just press in 2 depressions on the head for eyes.

For a snapping turtle or a turtle with its mouth open add a 2nd swipe of glass on the bottom of the head and shape similarly to the rest of the head. Then curve the top beak sharply down over the end of the lower jaw.

Finished.

Rabbit Bead

Create a standard white donut shaped bead.

Add a round blob for the head offset on 1 end.

Add a swipe of glass starting at the middle of each side of the bead and going up the side towards the back and then down to the bottom and off the bead. This creates the main back leg(s)

Take a 2nd swipe of glass starting at the end of the last swipe towards the front of the bead. This creates the feet.

Gently heat and press the legs in towards the body until they touch all the way around.

Add a dot of glass for the tail

Add 2 dots of glass on either side of the top of the head about the size of the tail for ears.

Add a small dot of glass on each cheek and another for a nose.

Touch a glass rod to the nose and pull it out just a little to point the face.

Touch a glass rod to each ear in turn and pull them out about ¼".

Pinch the ears with your tweezers to flatten them.

Bend one ear towards the front at a 90 degree angle ½ way up to give it some character. (or whatever you find most amusing)

Finished

Sources

Historical

Glass Online – The History of Glass
[Http://www.glassonline.com](http://www.glassonline.com)

Viking Answer Lady
<http://www.Vikinganswerlady.com>

Frojel Archaeological Dig, Professor
Dan Carlsson
<http://www.arkeodok.com>

Beadmaking

International Society of Glass
Beadmakers
<http://www.isgb.org>

Tobler Glass Creations
(I built and use the DIY kiln controller
today)
<http://www.toblerglasscreations.com>

Warm Glass
<http://www.warmglass.com>

Wet Canvas
<http://www.wetcanvas.com>

The Flow Magazine
<http://theflowmagaine.com>

Glass Craftsman Magazine
<http://www.glasscraftsman.com>

Corina Beads
(Check out her book as well)
<http://www.corinabeads.com>

Supplies

Frantz Art Glass Supplies
<http://www.frantzartglass.com>

Sundance Art Glass Supplies
<http://www.sundanceglass.com>

CR Loo Supplies
<http://www.crloo.com>

Arrow Springs Supplies
<http://www.arrowsprings.com>

Books

Cindy Jenkins
[Making Glass Beads](#)
[Beads of Glass](#)

Bandhu Scott Dunham
[Contemporary Lampworking](#)

Karen J Leonardo
[Creating Lampwork Beads for Jewelry](#)