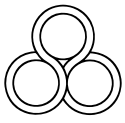
Richard La Londe

Fused Glass Art and Technique

by Richard Parker La Londe



Freeland, Washington

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introduction

In recent years, many people have urged me to write about glass history and my techniques – especially about the "liquid glass line" – and also my skills including glory holes, how to build kilns and mounting systems. In this book, I've endeavored to capture all these elements of my own creative and technological progress and also the glass history that made my own development possible. The book is in six sections: History, Richard La Londe, Fusing Concepts, Techniques, Equipment, and the Appendix.

The process of writing this book has been an exciting journey for me; for instance, I became very interested in kiln glass created in the 1950's before the process became popular. By the time the mythic 1962 Littleton/Labino, Toledo Museum Glass Workshops "launched the studio glass movement," the early fusers had already been experimenting and exhibiting for many years. As I wrote about the early days of the "Bullseye Fusing Movement," I realized that developments weren't just about technique, but about the artists, many of whom have become my friends.

Those friendships and my experiences frequently grew out of lucky circumstances that placed me in the right place at the right time. For instance, such good fortune contributed to my becoming, in 1983, one of the first fusing instructors for Bullseye Glass Company in Portland, Oregon; all of my glass pieces shown in this book are made from their glass.

Over the years, these connections with other artists – along with these opportunities, discoveries and accidents – contributed to the development of my glasswork. In reality most our new techniques are rediscoveries and variations on what has come before – "there is nothing new under the sun." I received an email the other day from someone telling me how excited he had been to develop the idea of a squirt bottle with powdered glass in a medium – until he found on the internet that I had been doing it for years. If this sort of thing happens to you, don't let that diminish your excitement! You discovered it on your own, and it's this thrill that keeps us going. I recently found out that artists have used enamels mixed with a medium and dispersed from a squeeze bottle before I did. It's not the technique – it's what you do with it.

If you are unfamiliar with glass fusing, I suggest that you take a basic fusing class, sometimes available through stained glass shops. You can also read a book, and I recommend two introductory books available today: Kiln Firing Glass: Glass Fusing Book One by Boyce Lundstrom, 1994, and Contemporary Warm Glass by Brad Walker. Also www.warmglass.com is a site to visit.

I feel that it is important to say this in the introduction: Wear a Respirator! Breathing powdered and fiberous glass can cause silicosis – which can kill you! – and dust from refractory materials like "Thin Fire" shelf paper is extremely bad for you. Work safely, live long and prosper!!!

Finally, I would like to say that any mistakes and omissions in this book are somebody else's fault and so don't blame me...but, kidding aside, I apologize if I left something or someone out or otherwise screwed up. I hope that you have fun with my book and enjoy this adventure as much as I have.

Richard La Londe June 30, 2006

Acknowledging the past: It is said that the present generation discounts the preceding one; the exhuberence of blowing glass overshadowed the kiln work that preceeded it. With the passage of time, we can look back and be amazed and appreciative of the artistic and technological developments of the artists from the 1950's all the way back to the ancient Egyptians.

facing: Post Contemporary Vessels, 1983, H. 7 in. (18 cm) x W. 17 in. (43 cm) x D. 16 in. (41 cm).

Exhibited in: Americans in Glass, The Leigh Yawkey Woodson Art Museum, Wausau, Wisconsin 1984

The 1984 Catalog discription: "I like to call my work Futuristic Nostalgia. I use glass to reflect my imagination. To fuse glass, I fire an assemblage of various pieces of glass in an electric kiln until they melt together. This flat shape is then suspended in a stainless steel mold and slumped into the final shape during a second firing. The unique matte surface is achieved by sandblasting and heat polishing. Art from my Post Contemporary Mind!"
Richard La Londe

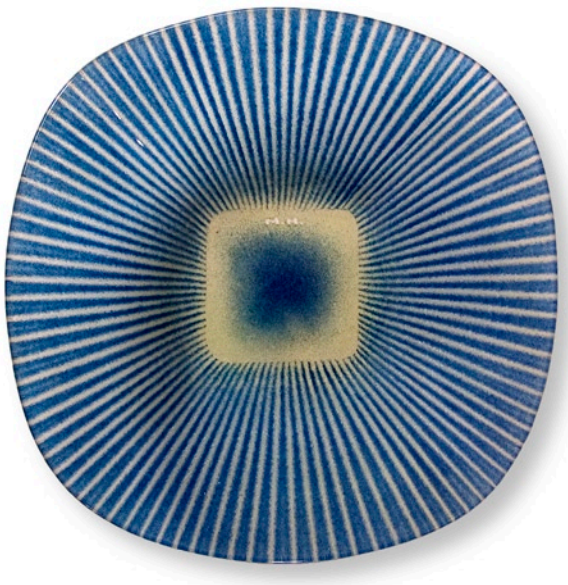
fusing in the USA: 1950's

Window Glass and Enamels

A group of craftsmen working in the late 1940's and 50's fused glass enamels (for copper and steel enameling) on and in between pieces of window glass, in electric soft-brick kilns used for ceramics. They mosty made utilitarian objects: lamp shades, plates, bowls, serving trays, jewelry, and the occasional arty piece. Galleries for art/craft were in their infancy, and these artists sold through department stores and out of their store fronts.

Maurice Heaton (1900 - 1990)

I heard Heaton lecture in the early 1980's. I remember him as a very spry and jaunty man. He described an impressive device that he made, operated like a small human-powered forklift to load his front opening kilns. He called it his "iron horse." Heaton was born in Switzerland and came to America in 1914 to work on stained glass church windows with his father, Clement Heaton. In 1937, Maurice began experimenting with fusing enamels on top of window glass, sometimes utilizing stencils. In 1947 he was fusing coarse enamels underneath glass and, by 1961, enamels between glass. Heaton created lighting fixtures, bowls, and dishes that he formed in steel molds. A 1980's studio pamphlet stated, "The kilns are still housed in the 200-year old grist mill on Old Mill Road, long a dirt road bordering the pond that supplied the power for the firing. The adjoining barn, also a landmark, which contained the atelier, workshop and display room, burned to the ground in April 1974. The entire contents were destroyed. A small new studio has been erected on the ruins of the historic old one." Maurice lived and worked in rural Rockland County, New York and actively pursued his art until 1990. He signed his work simply with his initials M.H.



Francsis and Michael Higgins invented the "dropout"!

facing upper left piece:
shallow bowl made by Michael Higgins, H. 3 ¼ in. (8 cm) x 14 in. (35 cm) in diameter, 1992. Created from cut pieces of sheet glass that was coated with pre-fired transparent enamels, with intentionally trapped air bubbles in some places, signed Higgins 92.

facing upper right piece:
dropout vase made by Frances Higgins, H. 7 in. (18cm) x 6 ¾ in. (17 cm) in diameter at the rim, with gold veiling, circa 1992, signed Higgins.

facing bottom:
red bird made by Maurice Heaton, fused enamels on the underside of ⅛ in. (3mm) window glass then slumped into a metal mold. H. 4 ½ in. (11 cm) x W. 7 in. (18 cm) x L. 15 in. (38 cm), circa 1950.

bottom left:
photo of Maurice Heaton sifting enamels onto glass, in his studio, from the cover of a pre-1974 studio brochure.

bottom right:
Maurice Heaton plate with enamels fused on the underside of ⅛ in. (3mm) window glass, 8 in. (20 cm) in diameter x 1 in. (2.5cm), circa 1950.

Frances Higgins (1912 - 2004) and Michael Higgins (1908 - 1999)

They called their work, *"modern miracles in everyday glass"* and said in one of their shop handouts, "*we were both University teachers, we left the field of education, joined forces in art and marriage, and began to develop our creativity in fused enameled sheet glass*." Beginning in 1948, Frances and Michael Higgins performed their miracles for over fifty years in the Chicago, Illinois area. In another pamphlet they said, *"We make bowls (4" to 24"), vases, plates, platters, various pendants and other jewelry, plaques for windows & walls, framed and unframed, mobiles, a wide range of decorative pieces, windows, panels and view-blockers made to order and all in fused enameled glass!"* They produced these by the thousands in their "modern" style of the 1950's and 1960's. In the political world of art, this emphasis on craft delayed their acknowledgement as artistic pioneers in the studio glass movement. The books, Higgins: Adventures in Glass and Higgins: Poetry in Glass by Johnson and Piña, have many color pictures of their work.

Beginning in their own studio they fused enamels between window glass in pottery kilns and sold their decorative pieces in department stores including Marshall Field, Bloomingdale's, and Gump's. From 1957 – 1964 they designed pieces and worked at the Dearborn Glass Company in Bedford Park, Illinois creating thousands of pieces and flooding the market with "Higginsware" and other pieces. In 1965 they briefly made glass items at the Haeger factory in southern Illinois. Today you can find these pieces in "collectible malls" and on eBay for as little as $20.

Pieces were placed on one end of a conveyer belt leading into a decorating lehr (kiln) in which they were fused and annealed, coming out the other end as a finished product. Michael lost much of his hearing standing for hours next to the noisy lehr. They were very happy to leave the factory scene, and in 1966 they set up their building in Riverside where they sold their items in their front shop, produced utilitarian ware and created unique "one of a kind" art in the back studio, all while living in an apartment on the second floor. The big event of the year was their Christmas sale where people lined up to get in the door. Frances and Michael Higgins both worked and lived here until they passed away. Louise Wimmer, who had worked for the Higgins' studio since 1978, and her son Jonathan Wimmer took over the studio and continue to produce "Higgins-style" glass today. The studio is located at 33 East Quincy Street, Riverside, Illinois, www.higginsglass.com.

The Higgins invented the dropout!

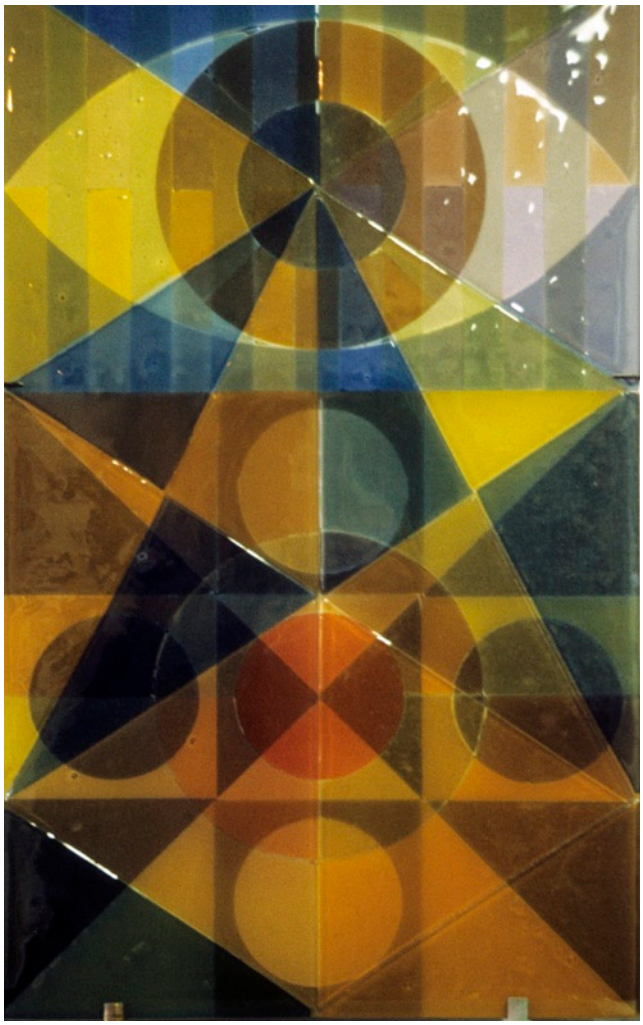
They placed glass on top of a clay ring and heated it until it sagged through the hole, making a vase. Many glass fusers utilize their technique today. Frances sifted, stenciled, and trapped enamels between window glass to create her pieces, and her dropout tree vases are stunning. She also made patterned frames for her glass, using a plaster cement-like material.

Michael solved the problem of compatible sheet glass by running pieces of window glass coated with enamels through the factory lehr. They amassed a large stock of colored sheets including special gold luster sheets for his projects. Michael would cut pieces from these sheets and create designs and layers that he fused and slumped into platters and dropouts. Michael designed and patented the "Rondelay," a fused glass circle that had metal tabs fused into them for linking to other rondelays to create screens and room dividers. They didn't sign their glass individually but with a joint, "Higgins."

The Higgins were truly innovative!

The Higgins' Studio

I was fortunate to have visited the Higgins at their studio in Riverside, Illinois in 1992 and 1995 and thrilled that they came to my 1992 solo exhibition at the Marx Gallery in Chicago.



facing: Richard La Londe with Frances and Michael Higgins in their Riverside gallery, 1995.

bottom right: The glass rack. A Higgins pamphlet says, "We coat flat sheets of clear glass with micro-layers of color enamels in about 30 different hues."

top left: Michael Higgins fused glass panel approximately H. 20 in. (50 cm) x W. 12 in. (30 cm), photographed in 1992, made from cut and fused enameled sheets of window glass.

top right: Michael holding his 24 in. (61 cm) fused platter that he made from cut gold lustered and enameled glass sheets, 1992. This was one of two that Michael made at Dearborn, in the early 1960s. The one Michael is holding sold at auction in 2004 for nearly $13,000!

Part 4: Technique
liquid glass line

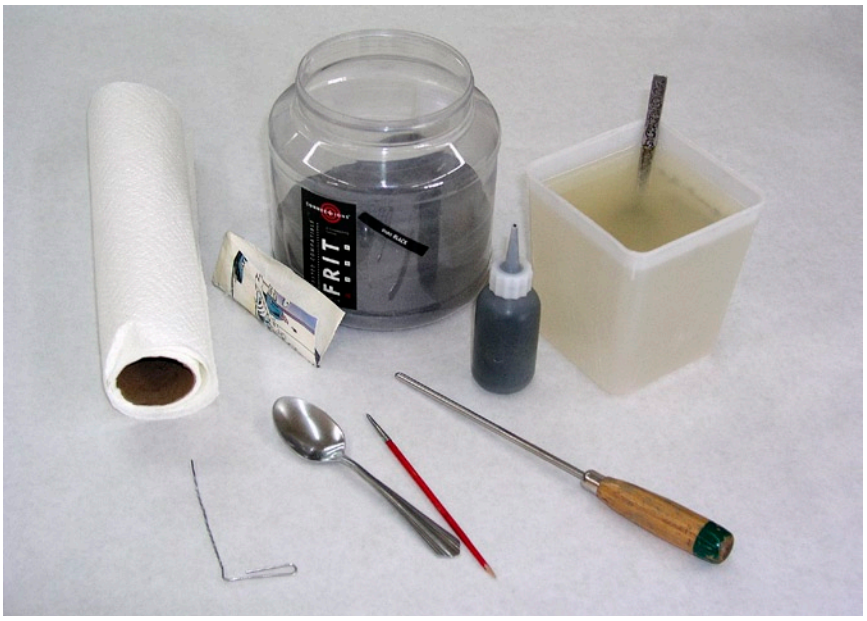
In 1993 I developed this technique in order to create an outline that could be filled in with colored frit. Many years later, I realized that this is similar to the wire and enamel technique used for cloisonné.

Make the Liquid Glass Goop
To get started, go to a ceramic supply place, such as Seattle Pottery Supply, and purchase a one-pound bag of CMC (carboxy methyl cellulose). This product is used for ceramics and also as a food additive (check the ingredients list for tortillas).

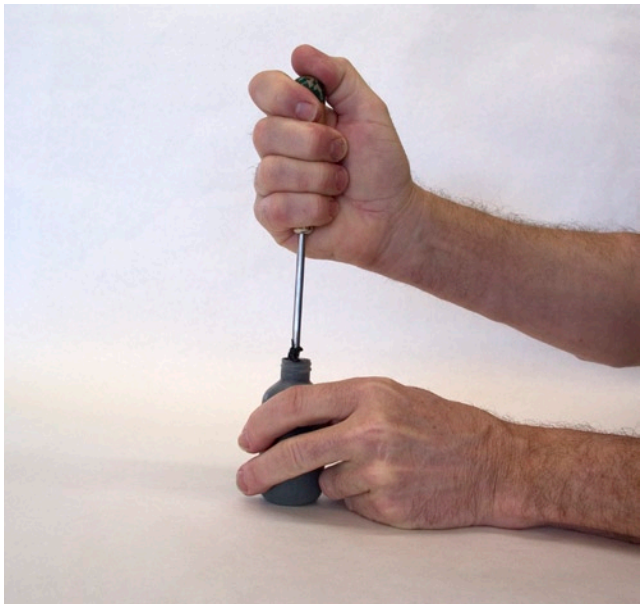
Boil water and then pour one pint of the hot water into a heat proof container. Add five heaping tablespoons of powdered CMC and stir for about thirty seconds. You will have to experiment with the amount of CMC because it differs between manufacturers and comes as either granules or flakes. Mash the lumps, but don't worry about those chunks that don't seem to want to break down. After the mixture cools and sits, say overnight, it will be a clear gel; the chunks should have dissolved. As with a good cup of coffee, I prefer to make it thicker rather than thinner. You can always thin it with water, but you can't make it thicker; if it's too thin, start over.

To create the "liquid glass," I mix about ⅓ cup of the CMC goop to ⅔ of a cup of glass powder (I use 08 Bullseye powder) in a squeeze bottle. Experiment with this ratio to get the right proportions until you can lay a nice even round line onto a piece of glass. A mixture that is too thin will flow and spread out. A mixture too thick will be too hard to squeeze through the nozzle. You can achieve some nice effects by spreading this mixture with a pallet knife or smearing it with a paintbrush. Fusing the line to stick will produce a dimensional line, and, of course, full fuse will make it flat. Either way, the CMC burns off clean.

Liquid Glass Line Tool Kit
(1) **squeeze bottle** - a bottle over 3" is to hard to squeeze.
(2) **stir rod with handle** - use a round shaft Phillips screwdriver.
(3) **small paint brush** - sharpen the end and use it to push the line around.
(4) **flat bottomed spoon** - used for tamping the frit down.
(5) **straightened paper clip** - use to clean out the nozzle.
(6) **folded card** - tape one end closed and use for applying frit.
(7) **razor blade** - use to cut and remove the liquid glass line.
(8) **ultra fine Sharpie marker -** use for drawing on the glass, it burns off in the firing.
(9) **paper towels** - use for cleaning the liquid glass off of the stir rod.
(10) **CMC goop -** for mixing with fine glass powder.
(11) **glass powder** - I use size 08 or finer.



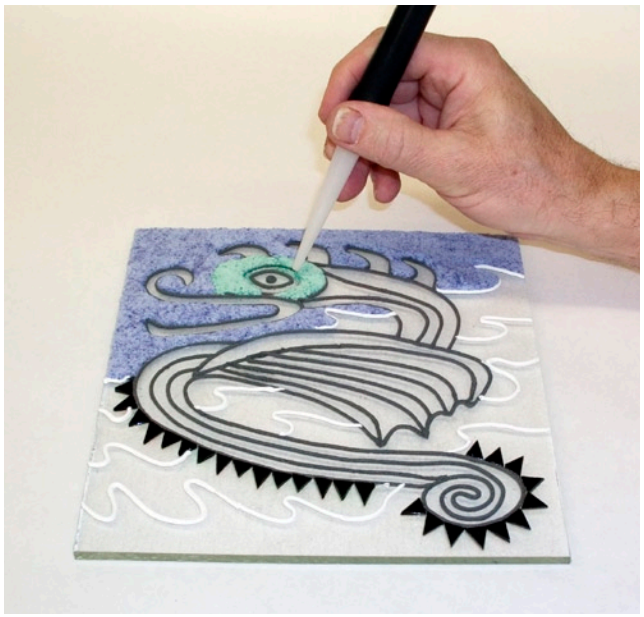
facing:
"Guardians," 1994, H. 58 in. (147 cm) x W. 42 in. (107 cm).



(1) Drizzle about 1/3 CMC goop to 2/3 glass powder (size 08) into the squirt bottle and mix with a stir rod. Wrap a piece of paper towel around the bottle neck and withdraw the rod. This keeps the liquid glass in the squirt bottle. Some people premix in a jar and then put it into the bottle or a small pastry bag. You will have to restir occasionally as the powder will separate with time.

(2) Working in reverse, place ¼ in. (6mm) glass on your drawing that has been flipped over. Squeeze and touch the liquid glass to the clear sheet, lift up ½ in. and let the glass line drop into place. It should flow easily but not expand sideways. If this occurs, add more glass powder and restir. The clear glass is ¼ in. (6mm) thick to prevent the huge bubbles discussed in the volume control section.

(3) I mix 50/50 size 01 fine frit with 08 powder which makes a mixture that flows easily from the tapper. I take a folded piece of postcard about 1 ½ in. (4 cm) high x 4 in. (10 cm) long and tape one end closed. I place the frit mix into it with a spoon and tap with my finger allowing a controlled and steady flow of glass powder.



(4) I clean up the spillover with a vacuum pen. I describe how to make this in the equipment section.