Jayne Persico presents...

Illuminated Art Glass

Featuring Kiln Cast Components

An Outstanding Sourcebook for Projects & Ideas to Create Elegant Light Sculptures
Instructions Include; Casting with Glass Frit, Fusing Assembly & Kiln Slump Forming

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This dragonfly lampshade was produced using an innovative 'upside-down' layering frit casting process in combination with an 'inside-out' slump forming technique.

The light green background of this accent lamp was created using a process called 'sugar-fired' frit that produces this multifaceted textured surface.

A Message from the Author

After I had completed the research and product development for my last book, 'Glass Kiln Casting,' I realized that I was so intrigued with the kiln casting process that I wanted to continue to explore its potential. A number of variations had occurred to me while I was working on that book and I found myself getting energized by the almost limitless possibilities.

I had an idea to create a 3-dimensional sculptural form by reversing the layering format from the one I used in the 'Glass Kiln Casting' book. I then turned the glass inside out on the mold (that is, design side down) to slump it. The table lamp in the photo at left is an example of this process. I was also drawn to the process of 'sugar-fired' frit that produces a multifaceted textured surface (see example at bottom left). The remarkable surface that is produced with this technique, has a quality that captures and reflects light so well that I just had to find a way to illuminate it. Another exciting aspect of frit casting was the flexibility of mixing and blending my own colored frit batches, giving me the freedom to create an unlimited palette of color combinations to coordinate with any decor.

The sculptural styles that I have included in this book range from contemporary to traditional. Some designs are simple and clean, while others are more complex, but they all have one theme in common, they are glowing art forms that I like to call 'Illuminated Art Glass'..

I truly hope you enjoy creating your own art glass sculptures using this process and that you have as much fun on your journey as I've had on mine.

Jayne Persico

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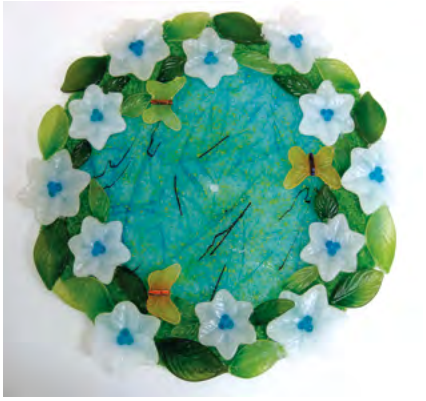
Showcase Galleries



This flat-fired blank has dozens of cast components ready to be tack fired. This is an example of the author's reverse layering process mentioned in the author's message on the previous page.

This lamp insert was made for the 'Contemporary Pendant Lamp' project on page 56. The white background is a good example of the 'sugar-fired' frit process mentioned in the author's message on the previous page.

Chapter 1 - The Path to 'Illuminated Art Glass'

Customization is an important component in the world of interior design. The proliferation of home improvement stores has opened up many new possibilities to better assimilate our decor with our own personal taste. A recent visit to my local home improvement store proved to be inspiring and enlightening. I was impressed with the large selection and varied styles of lighting fixtures. However, I was somewhat disappointed with the colorless and unimaginative commercial glass inserts – and this presented an opportunity! A good number of the fixtures had glass inserts that I felt could be easily replaced with my own glass creations. I selected a few that I liked, with clean lines and a simple frame designs, then went back to my studio to start my lamp research. One of my first considerations was to determine what lamp molds were needed to slump and form the glass for these commercially available lighting fixtures. Like most glass artists, I have my fair share of slumping molds in my studio (actually I probably have more than my share but who's counting). To my delight, most of the inserts I extracted from the store-bought fixtures fit very well into one or another of my molds. It was possible for me to immediately begin slumping shallow lampshades to fit into my new fixture hardware. Turn to page 56 to see an example of one of my first repurposed fixtures.

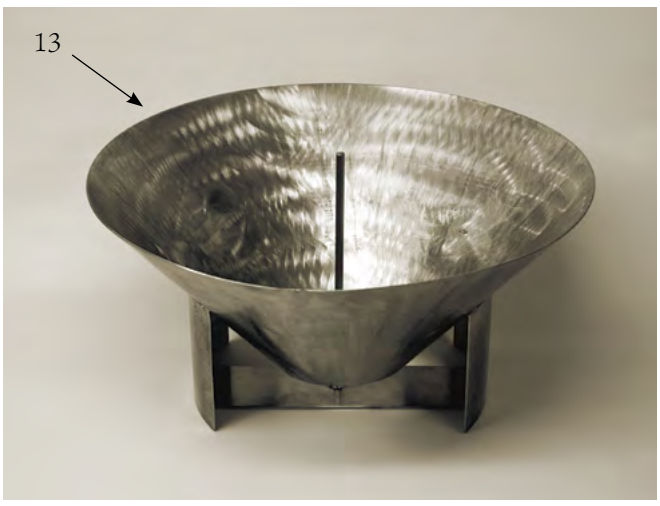
Now I was eager to begin creating lamps with more complex designs and even deeper curves. I knew this process would be more demanding. Two very important challenges needed to be addressed in order to accomplish this task. The first would be to find a way to keep the fused blank centered on the mold and the other would be to develop a kiln technique to enable the shade to be slumped in one firing. I met both of these challenges by inventing a new type of slumping mold that I have named the 'Self Center Slumper ™' (see photo on page 7 bottom left). It is a stainless steel mold with a center rod that holds the glass on-center during the slump firing. This mold design is so unique that it currently has a 'Patent Pending.' I have used it

to create dozens of lampshades in a variety of sizes and shapes and I am very pleased with its performance. See pages 34 & 35 for examples of lampshades that were created on this mold.

I have thoroughly enjoyed designing and fabricating all the lamp projects presented in this book. I had an opportunity to work with a wide variety of lampbases, fixture hardware, molds, kilns and glass. Interestingly enough my first experience creating lampshades came at the beginning of my glass career using traditional stained glass techniques. So I feel as if my journey has now come full-circle.

During my research and development of this kiln formed lamp process, I have identified what I feel is one the most important values an artist can have - that is patience. During the long, slow firing schedules that are necessary for these lamps I discovered that patience is much more than a virtue.

Tools, Materials and Equipment



Small digital scales are readily available at almost any kitchen store and they are not very expensive. These scales are very easy to use but there is one really important step that you must remember. Place an empty container (like the plastic bowl in the photo above) on the scale then 'ZERO' the scale by pressing the zero (sometimes called 'tare') button. Now when you fill it with frit the amount shown will be the frit only (and will not include the weight of the container).

1. Measuring pitcher (with pour spout)
2. Measuring cups
3. Shaker jars (spice shakers)
4. Kitchen sieves & strainers (assorted mesh sizes)
5. Small funnel
6. Applicator spoons (assorted types and sizes)
7. Weigh scale (with gram measurements)
8. Small plastic bowls
9. Hair dryer
10. Wood 'shish-kebab' skewers
11. Round brushes (assorted sizes)
12. Primo Primer™
13. Self Center Slumper ™

The Self Center Slumper™ (pictured at left) was developed by Jayne Persico (author of this book) and is patent pending technology. This mold enables fusers to slump glass disk blanks from 8" to 16" (20 to 40 cm) in diameter while it automatically holds the disk on center as it slumps into the cone-bowl. See pages 38 & 39 for more on how this innovative molds works.

Chapter 2 - Two Part Lamp Projects

One of the great attractions for me, of the lamp projects presented in this book, is they are both aesthetically pleasing and completely functional. The design inspiration for most of these pieces is the natural environment. Each lamp in this collection can easily serve as the centerpiece to any décor.

Accent lamps are featured in this first section (projects 1 to 4). Each one is composed of two art glass panels that are assembled to form a complete design. When mounted on the fixture base and illuminated, each lamp comes alive. These unique lamps vary in shape and size. They can have a design on one side or both, making them very versatile.

Project 3 – Dichroic Component Column Lamp

This 6" high lamp incorporates cast dichroic components and has a distinctive herringbone pattern on the inside that was created by firing the base glass on Lava Cloth. This special heat resistant cloth was designed to imprint texture on glass. The dichroic components were created by strip casting dichroic sheet glass in the Rope Bracelet Mold and the Celtic Pendant Mold. The rope components are strategically tacked onto the panels to conceal the vertical seams when the lamp is assembled. The contrast of the light dichroic components against the dark purple background makes an elegant statement.

Firing Schedule for Tack Fusing to a Large Base				
Controller Segment	Ramp Rate (Per Hour)	Target Temperature	Heat Soak Hold Time	Interaction
Segment 1	100°F / 53°C	1150°F / 620°C	10 min	None
Segment 2	AFAP Up	1300°F - 1320°F - 705°C - 715°C	8-10 min	Observe to Confirm Final
Segment 3	AFAP down	960°F / 515°C	4 hrs	Don't Vent
Segment 4	30°F / 15°C	700°F 370°C	1 min	None
Segment 5	60°F / 30°C	400°F / 205°C	1 min	None
Segment 6	100°F / 53°C ramp down	200°F / 93°C	1 min	Kiln Off
Kiln off cool down - Do not vent - Cool to room temperature before opening				

9. The next step is to assemble the components and the base. Line a kiln shelf with release paper and place the base disk frit side down. Then arrange the flowers, leaves and butterflies. Once you are staisfied with your border design, secure the components to the glass with a small amount of glue. Now fill the spaces between the components with green medium frit; do not put any frit in the center area of the disk beyond the flower & leaf design border. There is no need to use glue to hold the frit. Tack fire according to the schedule below left.

10. Please review steps 7 to 13 on pages 38 & 39 for a more complete description of the slumping process using the Self Center Slumper™. This Trillium Lamp project has numerous levels and thicknesses of glass and the firing schedule must be slow and methodical. The ramp up to where the slumping begins will take about 19 hours. Then another 24 hours until it has reached final cool down.

11. Prepare the stainless steel Self Center Slumper™ mold by spraying the inside with 3 coats of Boron Nitride mold release. Be sure to spray the center rod as well. Put a slump-confirm

ProTip: Equalize to Harmonize

The ProTip on page 43 give details about how the various characteristics of a glass blank will affect the slump result. Two of the characteristics mentioned were thickness and density. Notice that in step 9 on this project we filled the spaces between the components with green medium frit and did not put any frit in the center area. The purpose of this frit fill is to increase the density between the cast components to equalize the volume around the outside border. When this blank is slumped in the Self Center Slumper™ mold the skirt will slump more evenly with fewer wavy-wrinkles.

Project 9 – Contemporary Pendant Lamp

The design twist of this contemporary lamp is clear frit and colored glass fettuccine (little ribbons) noodles. Several layers of glass noodles are stacked and slumped to form delicately shaped dams that will contain the clear frit. The dams are arranged on a bed of clear fine frit and the background is filled with clear medium frit. The whole assembly is then fired to a soft sugar-texture fuse, followed by a shallow ball shaped slump. The lamp fixture was purchased at one of the home improvement warehouse stores. The original insert was removed and this new glass panel simply sets into the hardware frame and does not require any drilling.

Project 11 – Tropical Leaves Pendant Lamp

This tropical leaves pendant lamp has a moderate curve that is perfect for this inverted flush ceiling fixture mount. It was formed using the Self Center Slumper™ mold. The curve is deep enough for it to be used for a standard pendant lamp, or you may want to let the glass slump down a little further. The large tropical leaf design follows the shape of the curve perfectly. The leaves are arranged on a base of 3/16" (5 mm) thick pink sheet glass with a subtle pink background frit texture added.

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Jayne Persico presents...

Illuminated Art Glass

Featuring Kiln Cast Components

Jayne Persico will transport you into a world filled with 'Illuminated Art Glass' through her mastery of color, light and high style. This book reveals her ingenious lamp making process using all color photographs, detailed instructions and helpful design tips. You will discover an impressive array of glass kiln techniques from frit casting to tack-fuse assembly to ultra-managed slumping.

This 80-page book features more than 160 color photographs enabling readers to examine Jayne's specialized techniques in depth and to experience an expert's point of view and approach. Details include chapters on casting molds, tools, equipment, kilns, and a comprehensive look at digital controller programming. Glass trendsetters and style-makers from all walks are sure to find this book inspiring and enlightening.

This book will be valued by:
- Art Glass Fusers
- Glass Collectors
- Interior Designers
- Commercial Decorators

This book provides:
- Over 160 Color Photographs
- Inspiring Design Galleries
- Step-by-Step Instructions

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