

# An Award-Winning Shadowbox Design

By Tim Franer



▲ This walnut round corner frame won the 2017 PPFA International Framing Competition's open category. The earth tones used in the framing and matting reflected those of the antique pottery shards being showcased by the design.

This handcrafted round corner frame, which encases a set of antique pottery shards, won the 2017 PPFA International Framing Competition's OPEN Category. With this project, I intended to showcase and preserve these seven pottery shards by designing a unique frame with quality components in an archival encasement (which would help preserve the integrity of the shards). In keeping with the earthiness of the pottery, I chose natural wood and linen as the primary materials.

The design concept is entirely based around each antique pottery shard, and each framing component is there for a support purpose. The first step was understanding what I was framing. I looked for the characteristics that make each of the pottery pieces unique, such as dimension, size, color, texture, and finish. Next, I decided on what the best configuration would be to showcase the subject. I chose a vertical format, with the pottery shards arranged in a stack formation starting with the largest piece on the bottom and working upward.

To achieve visual emphasis, I determined the proper spacing and border proportion and selected a large, even border made of beveled linen. A dimensional spacer frame wrapped in linen was placed between the outer linen liner and the linen-covered backing board. Each pottery piece was then elevated within the encasement, conveying a floating effect, and placed within a brass support bracket structure so that each piece could be removed if necessary.

A handcrafted, solid walnut, rectangular cap frame profile was chosen for its beauty, strength, and warm, rich color that finishes well. These characteristics, along with the simple, deep cap profile design,



▲ I used tape to section off the walnut.



▲ I cut a template to perfect the corners.



▲ Each section was cut with a table saw.

created an enhancement and closure directly related to the subject. To add a stronger relationship between subject and frame, each frame corner was rounded to complement the rounded edges of the pottery shards. Another creative touch was added to the outer top edge of the frame: a  $\frac{1}{4}$ ", 45-degree raw wood bevel, finished with clear wax.

The natural walnut frame was hand-finished with a dye stain and Tung oil. I used Tru Vue Optimum Museum Acrylic for the glazing. The backing was sealed with black rag board, and bumpers were added with an aluminum cleat for hanging.

## Materials Used

1. Frame Structure. The frame structure can be broken down into four sections: walnut frame, wooden liner, encasement/spacer frame, and backing. Each structure is made from quality wood. After the four sections were cut and constructed, the outside frame was attached to the inside Baltic birch plywood structure, providing a strong frame support system. The liner was made from  $\frac{1}{4}$ " MDF board. The encasement structure consists of a  $21\frac{3}{4}$ "x $36\frac{3}{4}$ "x $2\frac{1}{2}$ " spacer

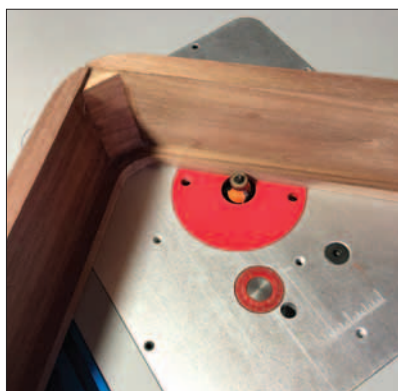
frame made from  $\frac{1}{2}$ " Baltic plywood with a  $\frac{1}{4}$ " Baltic birch plywood backing. Additionally, a  $\frac{1}{8}$ " Baltic birch plywood is attached to the  $\frac{1}{4}$ " plywood spacer frame backing. All joining and attachments consist of wood screws.

Baltic birch plywood, made in Russia, is known for its strength and durability due to the number of ply. The  $\frac{1}{2}$ " thickness is 9 ply, while  $\frac{1}{4}$ " is 5 ply and the  $\frac{1}{8}$ " is 3 ply. The handcrafted wood specie selected for this frame is Eastern FAF-Grade Black Walnut. Walnut is a beautiful, strong, and versatile wood. It comes from a moderately sized tree which grows to be about 100 feet tall, with a trunk that can be up to 60" in diameter. The wood ranges in color from light to chocolate to dark brown. Walnut's color varies from species to species and is also affected by the area in which it grows. Walnut wood is warm, rich, and finishes well.

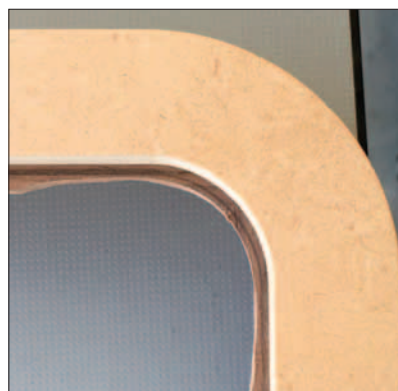
2. Fillet. For this project, I used a hand-wrapped, archival, flexible linen fillet. The fillet is applied with ATG tape for positioning and then seal-coated with an archival fabric adhesive. The seal-coated adhesive takes about one hour for



▲ The top frame face,  $1\frac{3}{4}$ " wide.



▲ A 2" router bit, used for perfect edges.



▲ The template, made from MDF board.

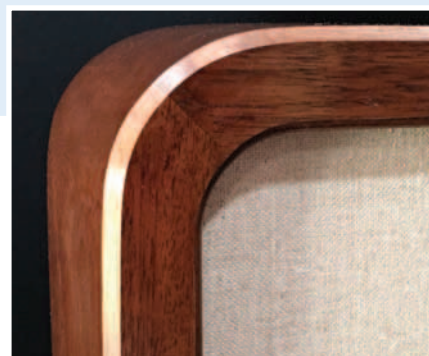




▲ Determining the stain on sample boards.



▲ The walnut stain was custom-mixed.



▲ The finished color was rich and warm.

curing, during which time all acidic migration is terminated. Once applied to the backside of the fabric liner window, it is free from any surface by 2".

3. Mounting Boards. The mounting boards and inside structures are made from  $\frac{1}{8}$ ",  $\frac{1}{4}$ ", and  $\frac{1}{2}$ " Baltic birch plywood. Each plywood structure was sealed, coated with acrylic gesso, and then covered with an archival linen fabric that was applied with a pH-neutral adhesive when cured.
4. Dust Cover/Hardware. A 4 ply black rag board was used for a dust cover backing. The hanging system is an aluminum 12" cleat bracket with a holding strength of 100 pounds.
5. Spacers. A  $21\frac{3}{4}$ "x $36\frac{3}{4}$ "x $2\frac{1}{2}$ " spacer frame was

made from  $\frac{1}{2}$ " Baltic plywood. Each  $2\frac{1}{2}$ " side was seal-coated with acrylic gesso, then covered with an archival linen fabric applied with a pH-neutral adhesive. The linen fabric was wrapped around one side and each  $\frac{1}{2}$ " edge, then assembled by screws. By wrapping each edge with fabric, each connecting joint has a perfect fabric fit corner. The frame spacer was placed between the top  $4\frac{1}{2}$ " beveled liner and the linen-covered backing/mounting board, creating an archival linen fabric encasement for the subjects.

## The Framing Process, Step by Step

The total footage used for this frame was 12'. Tape was placed on the wood surface to indicate how the walnut

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818	#8	100 lbs.	125'





▲ Fabric-covered dowels used for mounting.



▲ Styrofoam blocks helped during layout.



▲ The brass supports allow for removal.

would be sectioned off. After cutting four sections, the next step was to cut the rabbet and inside depth. In terms of dimensions, the rectangular inside frame measures 3" in depth; the top of frame is  $1\frac{3}{4}$ "; and the thickness of the rabbet is  $\frac{1}{2} \times \frac{3}{4}$ ". After determining the exact inside dimension, each frame section was cut to size using a table saw. Prior to joining each corner, a dovetail routing machine was used to rout a  $2\frac{1}{2}$ " dovetail groove. A  $2\frac{1}{2}$ " dovetail key was placed into each groove, providing the strongest corner joint assembly possible. For stronger reinforcement, a solid  $\frac{3}{4}$ " triangular walnut block was glued in each corner.

The top frame face needed to total  $1\frac{3}{4}$ " in width to have a full parallel radius on the outside and inside of each

frame corner. To create a perfect round corner, a template was cut to the exact outside dimension. The template was placed on top of the rectangular frame to draw each round corner onto the frame top. After drawing each corner pattern, the outside corner was sanded using different grades of sandpaper (starting with a 50-grit and progressing to a finishing grade of 400-grit). With the top of the rectangle frame width being  $1\frac{3}{4}$ " and the final face size being 1", the  $\frac{3}{4}$ " difference was cut down to  $\frac{5}{8}$ ", leaving approximately  $\frac{1}{16}$ " full over the finished width.

The template was taped and aligned with the outside edges. To create a perfect cut edge, a 2" flush mounted router bit was placed against the inside of the template and rotated on the router table until the frame edge was



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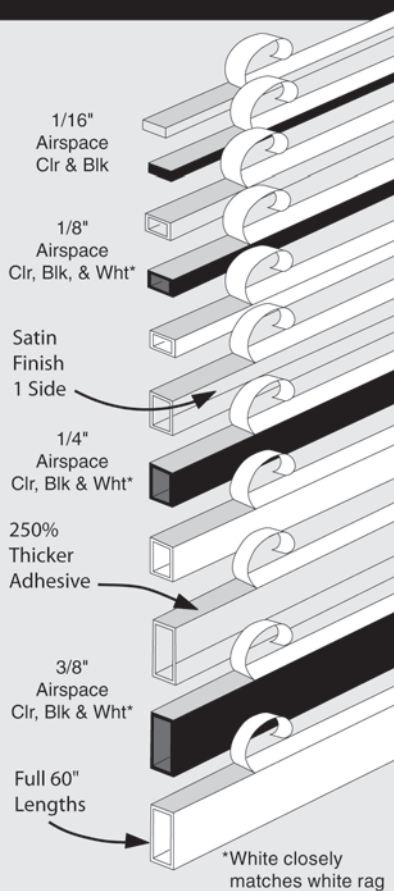
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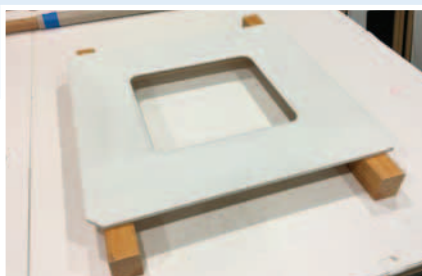
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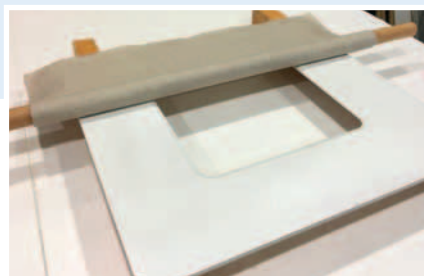
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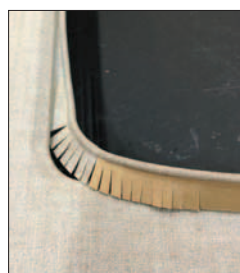


▲ The fabric wrapping technique I employed for this piece. The fabric was rolled up on a cardboard cylinder to help position it while applying it to the liner.



perfectly cut and flush with the template.

To create a well-blended walnut finish, a dye stain was custom mixed and applied by hand. Once the dye stain was finished, I applied three light coats of 100 percent wax-free shellac to the frame. The final finish consists of mineral spirits, Tung oil, ester gum, phenolic resin, and linseed oil. Six thin coats of this finish were applied to the frame; although it took some patience, allowing 24 hours' drying time between each coat created a masterful finish. A



▲ A matching linen fabric flexible fillet was attached to the inside opening of this liner. Top: the finished corner. Bottom: the border being cut.

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▲ The finished product, center, between two other framed collections of similar design.

600-grit wet/dry sandpaper was used after the second finish coat to remove any rough areas that occurred.

After a week of curing, I applied Liberon Clear Professional Paste Wax. The aforementioned 45-degree bevel was then cut on the finished outer face edge to top it all off. I like the uniqueness of this look; it gives the appearance of a narrower frame face. The bevel was cut on a router table for accuracy. As the router removed the finish, it created a raw edge on the frame face; it offered a clean, subtle closure for the framed pottery shards. A Liberon fine clear paste wax was applied to seal the wood.

A key element of this project was the fabric wrapping technique I employed. A 4½" wooden liner was placed on top of two 2"x2" boards. The fabric was rolled up on a cardboard cylinder to help position it while applying it to the liner. After applying the archival adhesive onto the seal-coated liner surface, the adhesive became tacky. At that time, I rolled out the fabric without putting pres-

sure on it. If you are using this technique, it is important to lightly push the center of the fabric down toward the work table so the fabric is slightly below the top of the liner. This enables you to wrap the beveled round corners with adequate fabric to wrap underneath for gluing. Next, a matching flexible linen fillet was attached to the inside opening of the liner. The flexible fillet border needed to be cut when applying around each corner.

Each pottery shard was elevated with a fabric-covered wooden dowel to give a floating effect. They were then placed into a brass support bracket structure that allows for the removal of each piece when needed. Each brass support was made to fit each shard's unique shape. To lay out the seven pottery shards, I cut Styrofoam blocks and placed them under each shard, then set them in their final locations. Finally, I removed each shard from the Styrofoam and used an ice pick to punch a mark for the ⅛" hole that was drilled through the backing board. **PFM**

**Tim Franer**, CPF, CMG, has framed artwork for heads of state, corporations, galleries, and fine homes across the globe for more than 40 years. Known for his creative design and skilled craftsmanship, he is an authority on art and design, consults with industry leaders to define color and design standards, and is a speaker and educator on art, design, and framing. Tim leads seminars and workshops worldwide. A former gallery owner, Tim has worked as a senior design and market development manager for Tru Vue and as a development design manager for Nielsen Bainbridge. He has won a number of framing awards and the PPFA Membership Award, and has served on the International Color Marketing Group's board of directors and as past president of Rotary Club International. He owns Tim Franer & Co. and is a regular contributor to PFM.



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